COMMUTE PROFILE

October 2003

A Survey of San Francisco Bay Area Commute Patterns in

Alameda • Contra Costa • Marin • Napa • San Francisco • San Mateo
Santa Clara • Solano • Sonoma

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EXECUTIVE SUMMARY

This is the eleventh edition of *Commute Profile*. It is the Bay Area's only annual study which focuses on commuters and the decisions that influence their choice of travel mode to work. *Commute Profile* is based on a survey of commuters who live in the nine-county Bay Area. The survey is designed to track the commuting patterns of residents. It provides a better understanding of travel behavior; it helps to define and target segments of the commuter population. The report is presented in two main sections. The regional profile section examines a single weighted data set of the nine Bay Area counties. Within this section are longitudinal comparisons of travel patterns, perceptions and motivations for the region as a whole. The second section profiles each of the nine counties individually. Within this section, a core set of the data are examined to provide a perspective on how commute patterns vary on a county-by-county basis.

THE TYPICAL BAY AREA COMMUTER

A typical Bay Area commuter is just as likely to be male as female based on the profile of respondents to *Commute Profile 2003*. He or she is more likely to drive alone than use any of the other commute options combined. The typical commuter drives alone mainly because he or she has "no one to carpool with," because an "irregular work schedule" requires the flexibility that driving offers and "no practical transit options exist." A one-way trip to work is 16 miles and takes them 29 minutes. The typical Bay Area commuter is in his or her early 40's and has a before tax household income in the $66,000 - $80,000 range. Eight of 10 commuters have free parking at or near their worksite and nine of 10 have regular access to the Internet.

DRIVING ALONE

2001	2002	2003
69%	69%	64%

COMMUTE MODES

Although driving alone to work continues to be, without a doubt, the most popular commute mode in the Bay Area, there was a five percentage point decline this year. This is the lowest level recorded in the *Commute Profile* series since 1996. The drive-alone rate was very stable between 1999 and 2002—varying by only one percentage point each year. The large drop this year is surprising. The combined use of carpools and vanpools was unchanged from last year—18 percent of Bay Area commuters carpool or vanpool to work. Between 2000 and 2002 carpooling had increased from 14 percent to 18 percent. Both transit and the use of "other" modes by commuters (i.e., walking, bicycling and telecommuting) have increased since last year. Transit use is up by two percentage points; this is primarily due to an increase in the percentage of commuters using BART. The increase in "other" mode use is due to an increase in walking and telecommuting.

ESTIMATED TRAVEL SPEED

2001	2002	2003
30 mph	32 mph	33 mph

COMMUTE DISTANCE AND TRAVEL SPEED

For the second year in a row, after many years of declining, estimated travel speed increased. Respondents are asked how far they travel to work and how long it takes them. Based on this data, travel speeds are estimated. While the increase in travel speed is interesting, it is also interesting to note average trip distance is the same now as in 1992. It had increased slightly between 1998 and 2001, but the average commute trip is currently 16 miles one way—the same as in 1992.

Supporting the trend of decreasing or stable commute distances over the past three years is a greater percentage of respondents living and working in the same county. For example, in Alameda County there has been a three percent increase in commuters both living and working there over the past three years. In Sonoma County there has been a 22 percent increase. Region-wide between 2001 and 2003, there has been a 12 percent increase in commuters living and working in the same county.

COMMUTE CONDITIONS

	2001	2002	2003
Better	14%	29%	30%
Worse	43%	25%	18%

CHANGING COMMUTE CONDITIONS

Between 1999 and 2001, respondents to *Commute Profile* were clear—commute conditions were getting worse each year. In 2002, there was a notable change for the better. For the first time, the percentage of respondents indicating conditions were "better" in 2002 was greater than the percentage indicating conditions were "worse." In 2003, respondents' perceptions of their commute conditions continued to improve. More commuters indicated conditions had improved and fewer indicated conditions had gotten worse. The most common reason given for improved conditions was "lighter traffic."

CARPOOL LANES

About 10 percent of Bay Area commuters use a carpool lane and almost nine out of 10 commuters who use carpool lanes save time getting to work. The reported time savings has decreased in the last two years as congestion in the mixed flow lanes has decreased; travel speeds in the carpool and mixed flow lanes are more similar now than in previous years. Consistent with this decreasing travel time advantage of carpool lanes was a decrease in the percentage of respondents who indicated the carpool lane influenced their decision to carpool or use transit. A new carpool lane opened in November 2002 in the Santa Rosa area. Access to carpool lanes for Sonoma County residents (Santa Rosa is the largest city in Sonoma County) doubled from 18 percent to 36 percent this year.

EMPLOYER ASSISTANCE

Commute Profile data has consistently documented the connection between free parking at the worksite (as well as the services associated with densely populated job centers) and mode choice. Locations with free parking have a drive-alone rate of 71 percent, while those without free parking have a drive-alone rate of 37 percent. Transit use is four percent in areas with free parking and 38 percent where free parking does not exist. Another factor influencing mode choice is incentives or services offered by employers to encourage use of commute alternatives by their employees. About 40 percent of employers offer incentives and services, but it varies considerably by company size—smaller employers are less likely to do so. The drive-alone rate is about seven percent lower at sites where commute alternative programs are operated.

EMPLOYER-BASED COMMUTE ALTERNATIVE PROGRAMS

Companies with	
fewer than 100 employees	24%
more than 100 employees	61%

CHANGING ATTITUDES

Over the past five years, a more positive attitude toward the use of transit and bicycling has been evolving. In 1999, 13 percent of drive-alone respondents indicated it would be "easy" to "somewhat possible" to make their current commute by transit. This group steadily increased over the last five years; now almost one in four commuters consider transit a feasible option. A similar trend has been emerging for bicycle commuting. Over the last five years, the percentage of respondents indicating it would be "easy" to "somewhat possible" to commute by bicycle one or two days a week increased from 12 percent to 22 percent. Respondents' attitudes toward carpooling have also shown a slight upward trend with about 25 percent of respondents indicating carpooling was a possible option for them.

EASY TO SOMEWHAT POSSIBLE TO COMMUTE BY

	1999	2001	2003
Transit	13%	22%	24%
Bicycle	12%	20%	22%

The main deterrents commuters who are currently driving alone encounter to carpooling are "finding partners" and "irregular work schedules." The main deterrents to using transit are a lack of "direct service between home and work" and the "additional time required to commute by transit." For drive-alone commuters considering bicycling, the main deterrent is distance (i.e., "it's too far to ride my bike"). However, for commuters who travel five miles or fewer to work, bicycling is more attractive—almost half of this group (47 percent) sees bicycling as a feasible option.

TYPE OF INFORMATION DESIRED

Traffic	Map of Roadway Congestion
Transit	Schedule and Route Maps
Rideshare	Casual Carpool and Matching Information
Bicycle	Route Maps

511 TRAVELER INFORMATION

Approximately three months prior to fielding the Commute Profile 2003 survey, the Metropolitan Transportation Commission (MTC) launched the new 511 telephone traveler information service. Almost two percent of respondents had already tried the 511 information service prior to responding to the Commute Profile survey. Most of them had used the service to get traffic information. Looking toward the future of the cutting-edge 511 service, respondents were asked what types of information were of most interest to them. Commuters who are likely to seek traffic information are most interested in seeing congestion depicted on a real-time map, potential transit patrons are most interested in schedule and route maps, rideshare users are looking for casual carpool and matching information and bicycle commuters are interested in having route maps available.

COUNTY COMPARISONS

Each Bay Area county has characteristics that reflect and influence its commute patterns. Some of the characteristics monitored in Commute Profile include: travel mode, trip distance, travel time, parking, vehicle availability and carpool lane access. The county profile section of this report further explores the similarities and differences between the counties.

COUNTY "SOUND BITES"

Alameda	Most BART riders (11%, tie) Most commuters bicycling to work (2%, tie)
Contra Costa	Longest travel time to work (38 minutes) Most BART Riders (11%, tie)
Marin	Most ferry riders (3%) Highest concentration of small employers (76%)
Napa	Most commuters driving alone (76%) Highest concentration of free parking (95%)
San Francisco	Most transit riders (35%) Smallest supply of free parking (33%)
San Mateo	Highest percent of telecommuters (3%, tie) Most often near the average (when counties are ranked)
Santa Clara	Best access to carpool lanes (58%) Highest percentage of residents working in the county (88%)
Solano	Most carpoolers/vanpoolers (22%) Longest trip to work (23 miles)
Sonoma	Most likely to have vehicle available for commute (99%) Most commuters bicycling to work (2%, tie)

INTRODUCTION

this section describes *Commute Profile's* history and methodology

In the spring of 2003, RIDES conducted the Bay Area's eleventh *Commute Profile* survey. RIDES operates the Bay Area's Regional Rideshare Program under contract to the Metropolitan Transportation Commission (MTC). *Commute Profile* is an annual region-wide telephone survey of commuters. The study is designed as a tool to help the Regional Rideshare Program and others better understand Bay Area commuters and their commute patterns. *Commute Profile* is unique among Bay Area surveys in that it focuses on commuters, their travel behavior and trends that emerge from year to year.

To track commute trends over time, *Commute Profile* has retained a group of core questions. The core questions include:

- Commute Modes
- Factors that Influence Mode Choice
- Travel Conditions
- Commute Distance and Time
- Use of HOV Lanes
- Influence of Employers and Employment Sites on Travel Behavior
- Potential Use of Options to Driving Alone
- Awareness of Commuter Information Services
- Demographic Information

Additional questions are rotated each year depending on current topics of interest to MTC and other partners who participate in the planning of *Commute Profile*. These rotating blocks of questions add an important element of flexibility to the study. This year's survey included a series of questions to examine current use of the 511 phone and web sites, as well as the type and frequency of traveler information in which Bay Area commuters are interested. *Commute Profile 2003* took place in partnership with BART, which added a series of questions to better understand potential use of their system by commuters. The findings from the BART questions are not reported in this document. BART staff are doing their own analysis.

METHODOLOGY

The target population for *Commute Profile* is adults over the age of 18 who are employed full-time (30 hours or more) outside the home. Because this is a key customer group for the Regional Rideshare Program's services, *Commute Profile* focuses on them.

The sample size for *Commute Profile* has varied from year to year as a result of budget considerations, but the last five years have been consistent (Table 1). Larger sample sizes allow for more accurate regional data and for data that are meaningful at the county level.

TABLE 1
COMMUTE PROFILE HISTORICAL SUMMARY

Year	Completed Questionnaires	Counties With Full Sample	Direct Costs Budget*
1992	1,600	1	$22,245
1993	2,800	6	$40,325
1994	3,200	7	$44,600
1995	1,090	2	$11,844
1996	3,450	8	$41,152
1997	No Survey	–	–
1998	1,608	2	$19,000
1999	3,628	9	$42,000
2000	3,600	9	$42,670
2001	3,600	9	$44,740
2002	3,643	9	$57,530
2003	3,600	9	$51,883

*This is the budget for acquiring the sample, conducting the telephone interviews and delivering a clean data set. It does not include questionnaire design, analysis, report preparation, graphic design or printing.

Between March 6 and May 6, 2003, a market research consultant administered telephone surveys to 3,600 Bay Area residents or 400 for each of the nine counties. Phone numbers were randomly generated, and calls were made in the evenings or on weekends. For the region-wide analysis, a weighted data set is used. The weighting is based on employed residents per county (Table 2). For the county-level analysis, the original data are used to provide the maximum sample size for each county.

TABLE 2
REGIONAL WEIGHTING FACTORS BY COUNTY

County	Weighting Factor
Alameda	1.85
Contra Costa	1.21
Marin	0.34
Napa	0.16
San Francisco	1.14
San Mateo	0.97
Santa Clara	2.26
Solano	0.46
Sonoma	0.61

n=400 per county

Commute Profile data are based on samples and, as with any sample, some of the year-to-year fluctuations are due to normal sampling error. County populations, based on employed residents, vary from 68,500 (Napa) to 844,000 (Santa Clara).[1] The samples of 400 from each county have a normal sampling error of five percent and a confidence level of 95 percent associated with them. The region-wide population of employed residents is estimated to be 3,336,500 according to the 2000 census. The regional sample of 3,600 has a normal sampling error rate of two percent and a confidence level of 98 percent. A two percent sampling error means if the survey was conducted 100 times, one would be confident 98 times out of 100, the characteristics of the sample would reflect the characteristics of the population within plus or minus two percent.

In some cases, *Commute Profile* examines sub-samples of the regional or county data sets where the sample sizes are smaller. Each table in Commute Profile includes the actual sample size in the format of (n=sample size). The normal sampling error increases as the sample size decreases as is shown in Table 3.

TABLE 3
NORMAL SAMPLING ERROR RATES

Sample Size (n=)	Sampling Error	Confidence Level
3,600	2%	98%
400	5%	95%
270	6%	95%
200	7%	95%
150	8%	95%
120	9%	95%
100	10%	95%

[1] Estimate of employed residents in 2003 are from the 2000 Census.

HOW BAY AREA RESIDENTS COMMUTE

this section discusses commute modes, commute distance, travel time, start time and flexibility, carpool lane use, carpool composition and telecommuting

COMMUTE MODE

To develop a relatively complete view of commuters' travel modes, *Commute Profile* looks at the trip to work in terms of "primary," "connecting" and "occasional" modes. The "primary" mode of travel is defined as the method used for all or the part of the trip that covers the greatest distance. All respondents were asked if their entire commute trip was made using one mode or if their normal trip to work involved the use of additional or "connecting" modes. Finally, if the number of days per week an individual used their primary mode did not match the number of days per week worked, they were asked what other modes they used on an "occasional" basis.

The percentage of respondents who drive alone as their primary commute mode declined by five percentage points between the 2002 and 2003 surveys (Table 4). This is the lowest level recorded over the last five years. The decrease in commuters driving alone was offset by an increase in carpoolers, BART riders, telecommuters and commuters walking to work. Carpooling has shown a steady increase as a primary mode over the last five years. In 1999, the carpool rate was 14 percent; it increased to 17 percent in 2001 and is now at 18 percent. BART showed the biggest gain increasing from three percent to five percent. Over the last five years, the percentage of commuters using BART has fluctuated from a high of six percent in 2000 to a low of three percent in 2002. The three percent of respondents indicating they walk as a primary mode and the two percent indicating they telecommute as a primary mode are also at five-year highs. Both of these modes are about one percentage point higher than their average over the last five years.

Approximately 12 percent of respondents indicated their normal trip to work involved the use of more than one mode (Table 4). The most popular connecting modes are driving alone and riding the bus. Riding BART, walking, carpooling, bicycling and riding light rail systems are the next most popular group of connecting modes. The results are similar to last year both in terms of the percentage of commuters using

TABLE 4
HOW BAY AREA RESIDENTS COMMUTE

Primary Commute Mode

Drive Alone	63%	**Light Rail**	1%
Carpool*	18%	**Caltrain**	1%
BART	5%	**Motorcycle**	1%
Bus	5%	**Vanpool**	<1%
Walk	3%	**Ferry**	<1%
Telecommute	2%	**ACE Train**	<1%
Bicycle	1%	**Other**	<1%

n=3,609

Connecting Mode

Drive Alone	4%	**Caltrain**	<1%
Bus	3%	**Vanpool**	<1%
BART	1%	**Motorcycle**	<1%
Walk	1%	**Ferry**	<1%
Carpool	1%	**Other**	1%
Bicycle	1%	**None**	88%
Light Rail	1%		

n=3,609

Primary and Connecting Modes Combined

Drive Alone	59%	**Light Rail**	2%
Carpool	16%	**Caltrain**	1%
Bus	7%	**Motorcycle**	1%
BART	6%	**Vanpool**	<1%
Walk	4%	**Ferry**	<1%
Bicycle	2%	**Other**	1%
Telecommute	2%		

n=3,609

Occasional Commute Modes

Drive Alone	2%	**Walk or Jog**	<1%
Telecommute	2%	**Light Rail**	<1%
Carpool	1%	**Caltrain**	<1%
Bus	1%	**Motorcycle**	<1%
BART	1%	**Other**	1%
Bicycle	1%	**None**	93%

n=3,609

* Respondents who initially indicated that they drive alone, but later indicated that they have others in the car with them 3-5 days per week were reclassified as carpools.

connecting modes and the type of modes used—the six most commonly used connecting modes are the same this year as last year.

When primary and connecting modes are combined, a view of the journey to work is provided that gives equal weight to each mode regardless if it is used for the whole or just a portion of the trip. For an individual who drives to BART, their trip will show up twice—once in the drive-alone category and once in the BART category. Because one person's trip to work can include multiple modes, the total number of trips represented here is greater than the number of trips represented in the portion of the table that shows only primary trips. There are some differences between this combined view and the view of just the primary mode of travel. The percentage of trips made driving alone decreases by about four percentage

points (from 63 percent to 59 percent) and the percentage of carpooling drops by two percent (Table 4). The percentage of bus, BART, walk and bike trips increase when these connecting modes are given equal weight.

An occasional mode is a completely separate mode used on days when commuters do not use their primary travel mode for their trip to work. Approximately seven percent of respondents indicated they use a different method of commuting on an occasional basis. This represents a decline from the 2002 survey where almost 11 percent of respondents indicated they used an occasional mode as part of the normal commuting pattern, but it is in line with the 2001 survey where the percentage of respondents using an occasional mode was also seven percent. Driving alone and telecommuting are the most popular occasional modes. About four of 10 of respondents who use an occasional mode either drive alone or telecommute (Table 4). The use of telecommuting as an occasional mode is down from last year (when it was at five percent), but at approximately the same level as it was in 2001. It was noted earlier that telecommuting as a primary mode has increased over the last year. This may partially explain its decline as an occasional mode. In 2002, the average number of days telecommuted per month was four. In 2003, the number increased to five and a half.

The primary and connecting modes in Table 5 have been clustered in four groups (drive alone, carpool, transit and other)[2] for easier comparisons. The table shows the types of connecting modes used based on primary mode. For example, of those commuters whose primary mode is driving alone (first row), 10 percent drive to meet a carpool, 65 percent drive to catch transit and 26 percent drive and then use an "other" mode to complete their journey to work.

Transit users were the most likely to use connecting modes on their normal commute trip (55 percent use a connecting mode), and they are most likely to drive for part of their trip or use multiple transit modes. Drive-alone commutes were the least likely—only three percent use a connecting mode. Twenty-four percent of "other" mode users and eight percent of carpoolers use connecting modes. Transit was the most frequently used connecting mode for individuals who drive alone and carpool. Driving alone was the most frequently used connecting mode for individuals whose primary mode was either transit or "other" modes.

[2] "Drive Alone" includes motorcycles and taxis; "carpool" includes vanpools; "transit" includes buses, trains and ferryboats; and "other" includes bike, walk and telecommute.

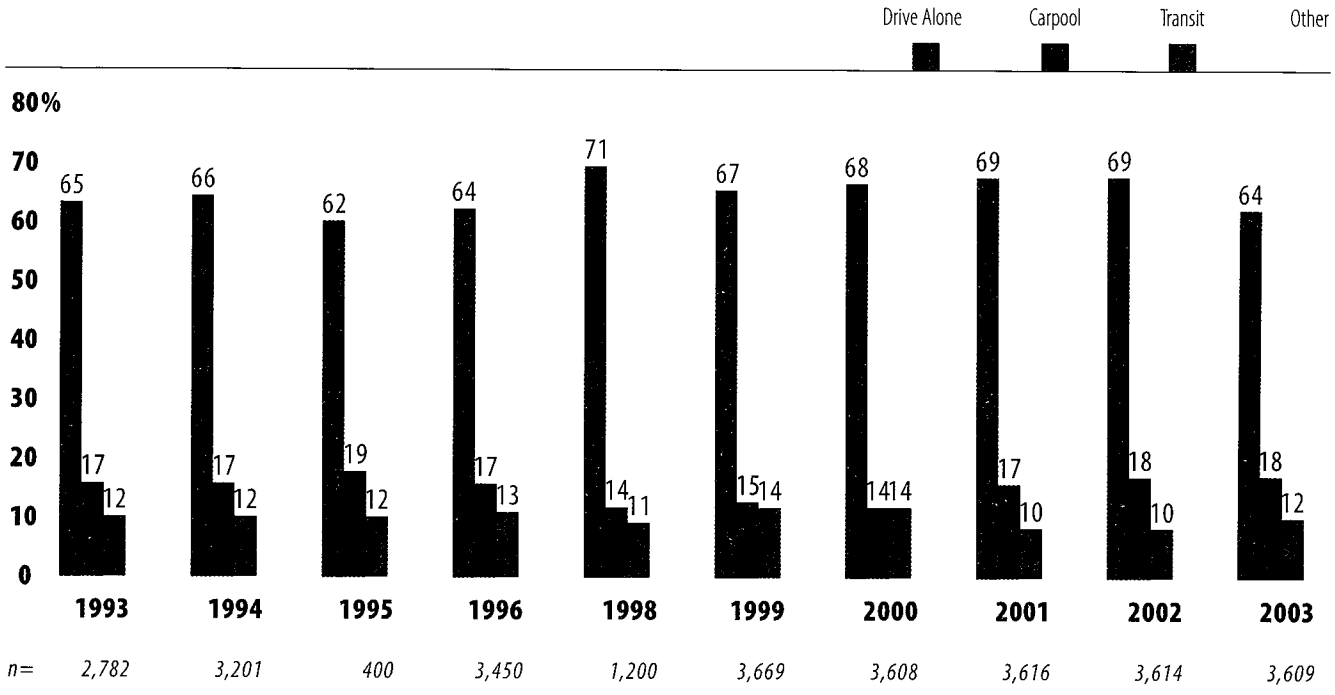
TABLE 5
PRIMARY MODE BY CONNECTING MODE

Primary Modes	Connecting Modes			
	Drive Alone	Carpool	Transit	Other
Drive Alone 3% of drive alones use a connecting mode *n=74*	--	10%	65%	26%
Carpool 8% of carpoolers use a connecting mode *n=53*	33%	7%	41%	19%
Transit 55% of transit users use a connecting mode *n=236*	38%	8%	36%	19%
Other 24% of other mode users use a connecting mode *n=57*	38%	9%	34%	19%

Grouping commute modes into clusters makes it easier to view patterns which emerge over time. The biggest change from last year is a five percentage point drop in the drive-alone rate (Figure 1). It had been fairly steady over the previous four years with a gradual upward trend; the drop this year is contrary to past trends. To balance the decline in driving alone both transit and the use of "other" modes increased. The increase in transit use runs counter to the trend observed in *Commute Profile* over the last two years and counter to the trend of generally lower overall ridership on transit reported by operators. Although the lower ridership levels reported by operators appear to contradict the *Commute Profile* data, it is feasible that the percentage of commuters using transit can increase while overall ridership decreases. The fact that employment has declined would lower ridership levels, but not necessarily impact the percent of commuters riding transit. For "other" modes, this marks an upward movement of a trend line which has been flat over the last five years. The carpooling rate this year is consistent with the trend which has emerged over the last five years showing a gradual increase.[3]

[3] There have been two changes in methodology since the survey began in 1992. In 1998, a change was made in how carpools were classified (drivers who have passengers a minimum of three days per week are classified as carpoolers—previously data was not available on frequency so all drivers with passengers were classified as carpoolers), which resulted in a shift of about two percentage points from carpooling to driving alone. In 2001, the survey began collecting more detailed information on the mode used to get to work. This information was expanded to include primary, connecting and occasional modes. This had the impact of shifting some trips from transit to other modes.

FIGURE 1
CLUSTERED MODES OVER TIME*

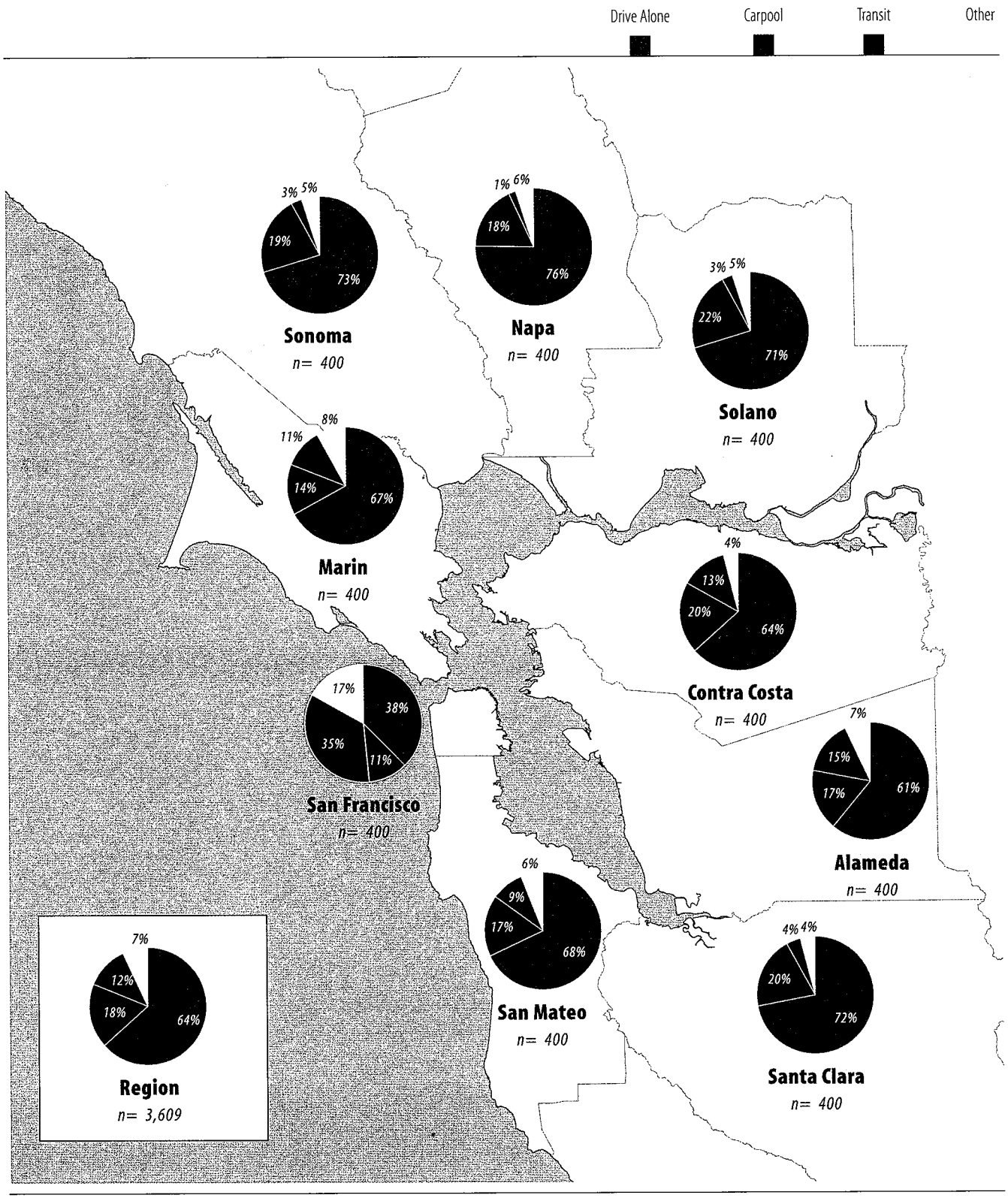


*It is important to note that sample sizes in 1995 and 1998 (because of budget considerations) were smaller; data from these two years should be viewed with added caution.

COUNTY COMPARISONS

There are a number of differences in commute modes between commuters who live in different counties—some subtle, some more obvious, but mostly related to the options that are available. The availability of transit and parking, as well as travel distances, appears to influence commuters' choices. Consistent with previous years, driving alone is most popular for commuters who live in Santa Clara, Sonoma and Napa counties (Figure 2). San Francisco commuters are the least likely to drive alone to work; they have the highest transit and "other" mode use and the lowest carpooling rate. Solano once again has the highest carpool rate; it was temporarily unseated as the "carpool capital" by Contra Costa in 2002. Santa Clara tied Contra Costa for the second highest drive-alone rate this year. Consistent with previous years, transit use is distinctly lower in Napa, Solano, Sonoma and Santa Clara.

FIGURE 2
COMMUTE MODE CLUSTERS BY COUNTY



COMMUTE DISTANCE

Trip distance has remained fairly constant since 1992—varying from a low of 14 miles to a high of 17 miles (Figure 3). The 2003 data supports the 2002 data which showed a small decline from 17 to 16 miles one-way. This year's trip distance is almost identical to the average of all years. Data collected here does not support common claims that commute distances are getting longer. *Commute Profile* does not sample residents from counties beyond the nine core counties. Commuters from counties such as San Joaquin and Stanislaus, who may be making longer trips, are not included in this study. Even if commuters from some of these outlying counties were included in the study, they comprise a small percentage of total commuters and would not dramatically influence results on a regional basis.[4]

FIGURE 3
AVERAGE REGIONAL COMMUTE DISTANCE (one-way)

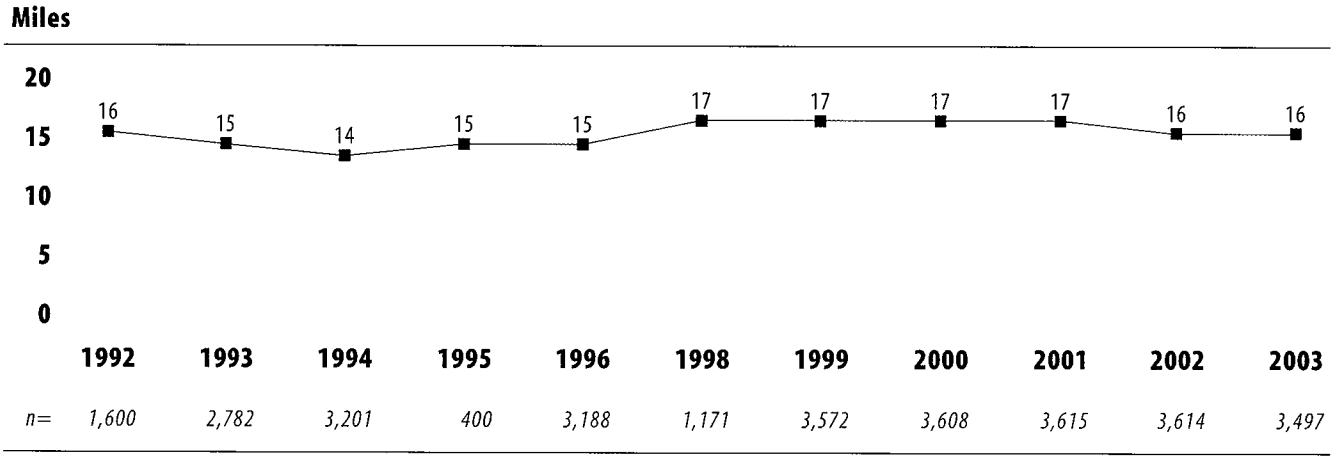


Table 6 provided additional insight into the distances commuters travel to get to work each day. Long-distance commuters (those traveling more than 41 miles each way) are the minority—only seven percent are in this category. At the other extreme, short distance commuters (those traveling five miles or less) comprise the largest group. The flat trend line shown by average commute distances in Figure 3 is clearly reflected by the lack of any upward or downward trends in the grouped mileage categories.

Short-distance commuters are the least likely to drive alone (Figure 4) and the most likely to participate in "other" modes which include biking and walking. Transit usage is more common among short-distance commuters (0-5 and 6-10 mile

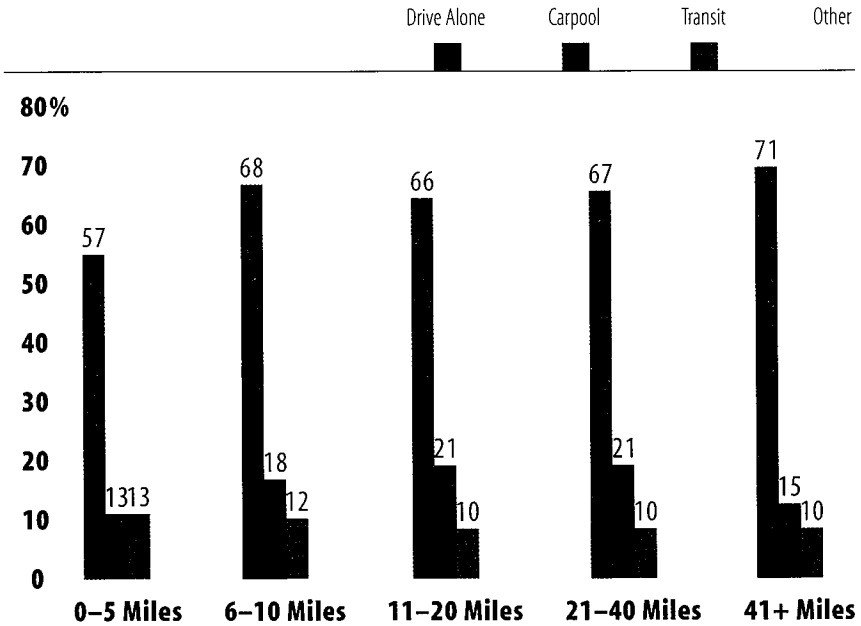
[4] For example, about 13,000 San Joaquin and Stanislaus residents commute to Santa Clara and San Mateo counties—common long-distance commutes. This is less than one half of one percent of Bay Area commuters. (Source: 2000 Census, compiled by KnightRidder)

TABLE 6
COMMUTE DISTANCE OVER TIME

One-Way Miles	1996	1998	1999	2000	2001	2002	2003
0 - 5 miles	33%	25%	28%	28%	28%	30%	28%
6 - 10 miles	20%	20%	20%	17%	20%	20%	20%
11 - 20 miles	25%	28%	26%	26%	25%	27%	26%
21 - 40 miles	16%	21%	19%	22%	20%	18%	20%
41 miles +	7%	7%	8%	7%	6%	6%	7%
n=	*3,188*	*1,171*	*3,572*	*3,608*	*3,615*	*3,614*	*3,493*

ranges), but not dramatically different than longer distance commuters. It is possible shorter distance commuters may be more likely to find a direct transit link between home and work and longer distance commuters may appreciate the lower cost and "useable time" advantages of transit. Carpooling is highest among commuters who travel 11-20 and 21-40 mile ranges, and those traveling the longest distances are the most likely to drive alone. These long-distance travelers, although they represent only seven percent of commuters, are an excellent target market for the use of alternatives to driving alone because they have the greatest potential benefit.

FIGURE 4
COMMUTE MODE BY DISTANCE



	Drive Alone	Carpool	Transit	Other
Average miles	17	17	15	8

COUNTY COMPARISONS

Solano County residents continue to travel the longest distance to work (Table 7). On average, these commuters travel twice the distance that San Francisco residents travel. Contra Costa County residents, after a dip in 2002, travel on average only one mile less than Solano residents. The commute distance for Santa Clara County residents is up slightly after what looked like a decrease in 2001. In 2001, Santa Clara actually had the shortest commutes—a distinction owned by San Francisco all other years. Napa showed the largest decrease in commute distance. Compared with earlier years the 14 miles recorded this year seems unusually low. With the few exceptions mentioned above, the ranking of counties by commute distance has been fairly consistent since 1996.

TABLE 7
AVERAGE ONE-WAY COMMUTE MILES BY COUNTY*

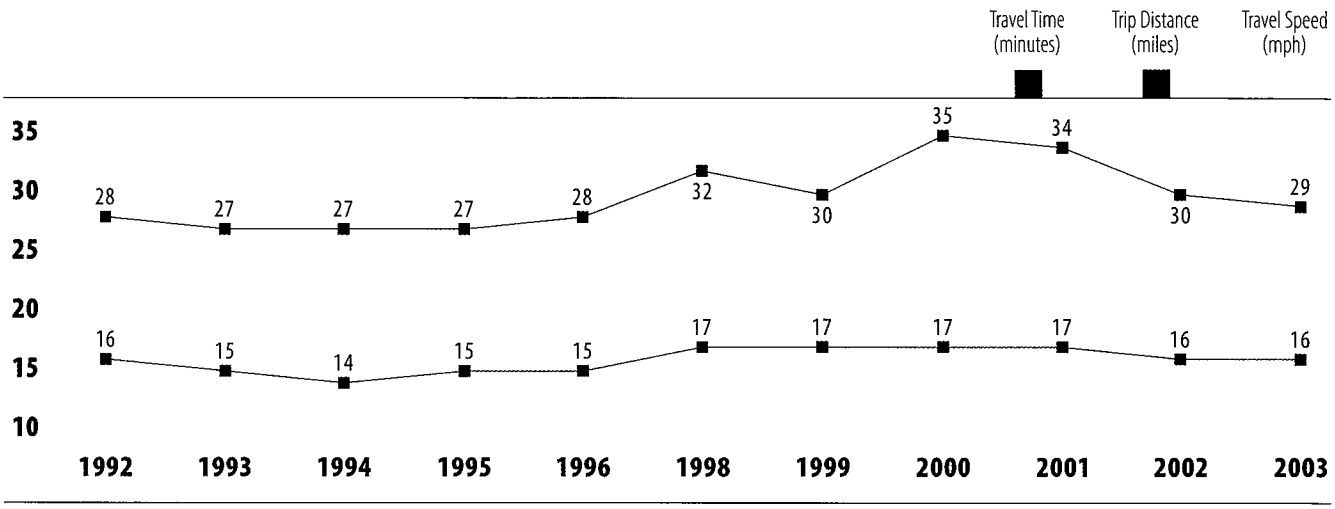
County	1996	1999	2000	2001	2002	2003
Solano	23	27	27	25	25	23
Contra Costa	19	21	22	23	20	22
Sonoma	19	21	20	20	19	18
Marin	16	17	18	18	17	17
Alameda	16	17	17	17	16	16
San Mateo	16	15	16	16	15	15
Santa Clara	14	14	14	12	14	15
Napa	19	19	20	18	17	14
San Francisco	9	11	12	13	11	10

* n=approximately 400 for each county each year

COMMUTE TIME

In 2002, the trend of increasing travel time to work took a dramatic turn in the other direction—decreasing from 34 to 30 minutes (Figure 5). With the economy continuing to be slow and traffic congestion lighter, travel time to work decreased again in 2003. Travel times have mirrored the increases and decreases in economic activity. Economic activity hit its peak in 2000; as the economy started to cool down in 2001, travel times began to decrease and have continued to do so in 2003. Based on the data gathered on distance and time, travel speeds were calculated. For the second year in a row this measurement of commute conditions shows an increase in speeds—as fewer commuters on the road each morning and roadway improvements positively influence traffic flow. Respondents' perceptions of commute conditions have again

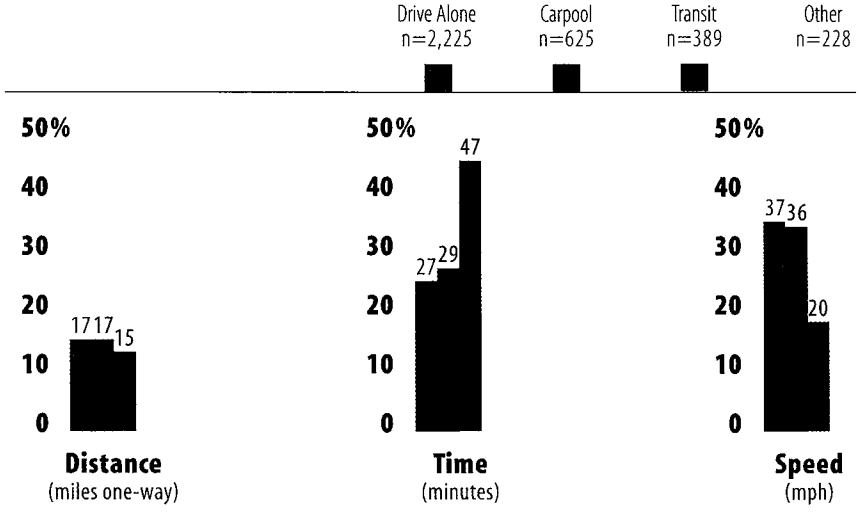
FIGURE 5
TRAVEL TIME TO WORK



improved over the last year (discussed in more detail later)—lending further support to the hypothesis of improved commute conditions as a result of fewer commuters.

Auto-based modes and non-auto modes have considerably different travel characteristics (Figure 6). Commuters who drive alone and carpool have similar distance, time and speed characteristics. Carpoolers who regularly use carpool lanes on their commute, however, travel longer distances (26 miles each way) and do so at greater speeds (41 mph). Transit users travel slightly shorter distances compared to the auto-based commuters, and do so at slower average travel speeds. Transit riders travel longer distances than "other" mode commuters but do so at about the same speed.

FIGURE 6
TRAVEL CHARACTERISTICS BY PRIMARY MODE



COUNTY COMPARISONS

Solano residents have the fastest estimated travel speeds on their daily commutes (Table 8). Napa and Sonoma residents have the next fastest speeds. Commuters who live in San Francisco have the slowest estimated travel speeds. Over the last three years, travel speeds have increased for seven of the nine counties. In Napa and San Francisco counties, travel speeds decreased. Employment figures provided by the State of California show, that unlike the rest of the Bay Area, the Vallejo-Fairfield-Napa area has actually registered gains in employment of about four percent since late 2000.

TABLE 8
ESTIMATED TRAVEL SPEED (MPH) BY COUNTY*

County	1996	1999	2000	2001	2002	2003	Change 1996-2003
Solano	44	48	37	37	39	41	−3
Napa	43	45	38	39	37	37	−6
Sonoma	43	41	35	35	36	37	−6
Contra Costa	35	39	32	33	34	34	−1
San Mateo	37	34	31	30	34	35	−2
Santa Clara	36	32	29	26	32	35	−1
Alameda	35	34	30	28	30	33	−2
Marin	31	33	27	28	30	32	+1
San Francisco	21	25	20	24	23	21	=

* n=approximately 400 for each county each year

In 2002, only one of eight counties (San Francisco) had posted an increase in travel speed since 1996. One additional county (Marin) moved into the "positive change" category in 2003. With the exception of San Francisco, all counties show positive or no change from last year.

START TIME AND FLEXIBILITY

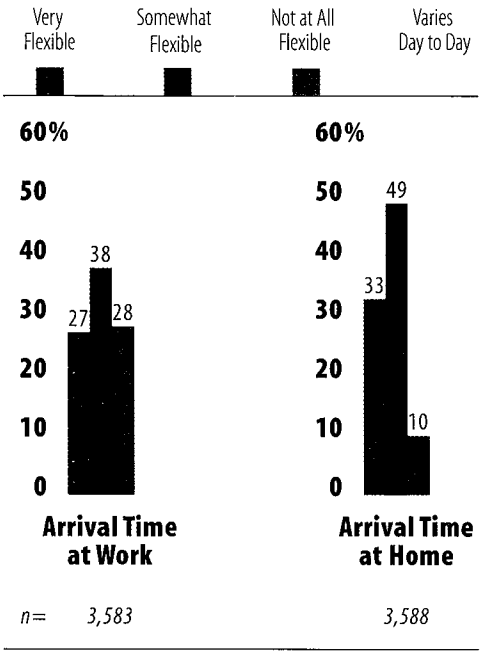
For the second year, data were collected on the time respondents start work (Table 9). Predictably, the highest percentage of respondents starts work between 8 a.m. and 8:59 a.m. More than 80 percent of respondents start work during the morning peak period (6 a.m. to 9:59 a.m.). Since many of the survey calls were made in the evening (some were also made on weekends), the 4 p.m. to 11:59 p.m. may be underrepresented in this sample.

TABLE 9
START WORK TIME

06:00 am – 06:59 am	8%
07:00 am – 07:59 am	24%
08:00 am – 08:59 am	34%
09:00 am – 09:59 am	18%
10:00 am – 03:59 pm	7%
04:00 pm – 11:59 pm	3%
Midnight – 05:59 am	5%
Varies	2%

n=3,604

FIGURE 7
FLEXIBILITY OF ARRIVAL TIMES AT WORK AND HOME



Also for the second year, respondents were asked about the flexibility of their arrival and departure times (Figure 7). Arrival times at home are more flexible than arrival times at work. Just over 80 percent of respondents indicated their arrival time at home was "very flexible" to "somewhat flexible." Even though arrival times at work were less flexible than arrival times at home, just over one in four respondents indicated their arrival time at work was "not at all flexible."

CARPOOL LANE USE

Just over 40 percent of respondents have a carpool lane along their route to work. Of those who have a carpool lane along their route to work, about 22 percent use the lane regularly to get to work. This translates to about 10 percent of all commuters using a carpool lane; most of them (86 percent) save time by using the lane. The amount of time respondents estimated saving was about the same as the previous year, but less than the prior couple of years (Figure 8). In 2000 and 2001, when most indicators showed higher levels of congestion, the time saved using carpool lanes was at its highest. The 17 minutes saved in 2003 was similar to the time saved in 1999 and earlier. As noted last year, the decreased amount of time saved by using the carpool lane may be related to the adjacent mixed flow lanes being less congested.

Also consistent with the decrease in time saved and last year's results was a decrease in the percentage of respondents who indicated the carpool lane influenced their decision to carpool or use transit (Figure 9). Although fewer respondents indicated the carpool lane influenced the decision to carpool or use transit, about the same percentage of commuters (61 percent) indicated they would continue with their carpool or transit mode even if the carpool lanes did not exist. One of four respondents indicated they would no longer carpool without access to a carpool lane.

FIGURE 8
MINUTES SAVED BY USING CARPOOL LANE (one-way)

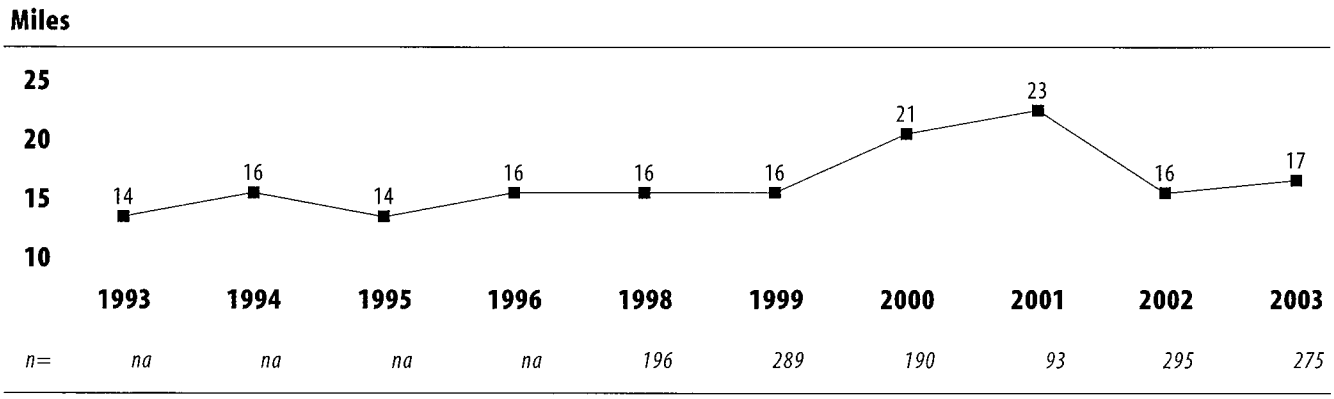
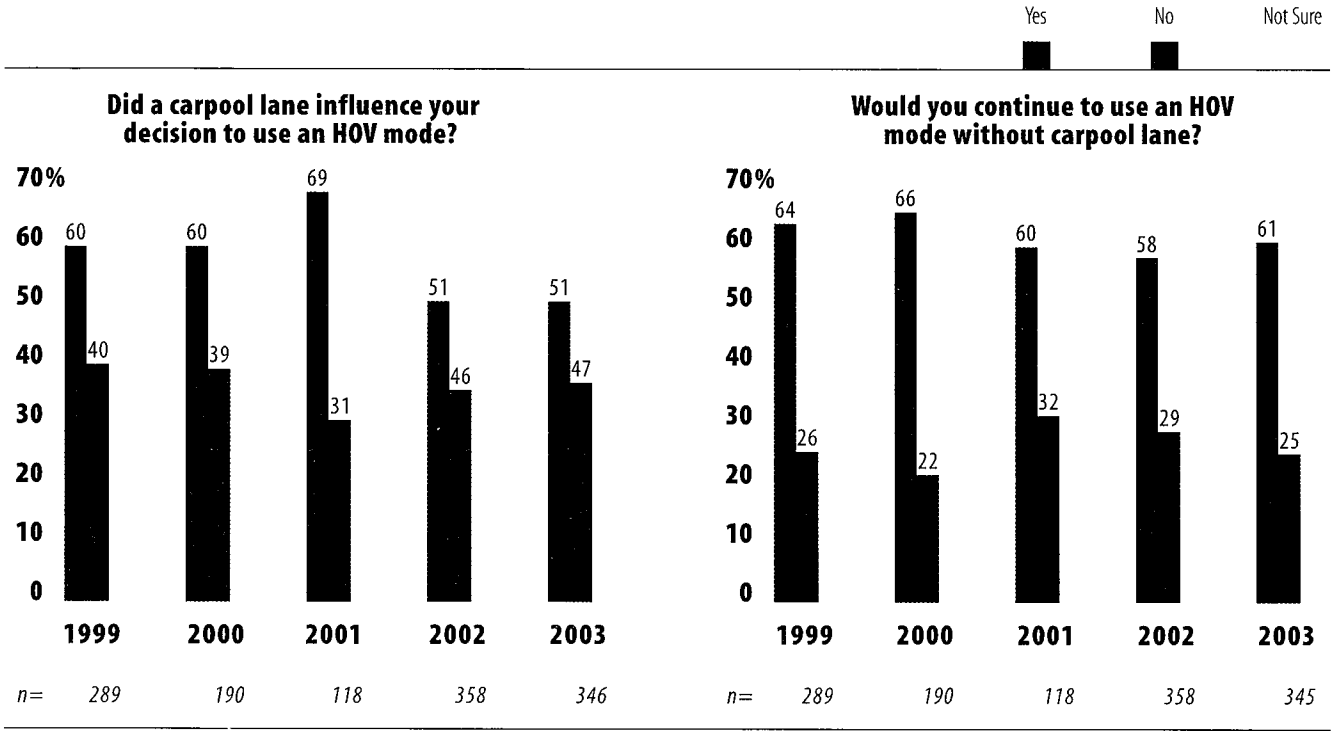


FIGURE 9
CARPOOL LANE AND COMMUTE MODE CHOICE



COUNTY COMPARISONS

Santa Clara, Marin and Contra Costa residents were most likely to report having a carpool lane along their route to work (Table 10). Napa County residents have the lowest level of access to carpool lanes. One significant change from last year occurred in Sonoma. Access to carpool lanes for Sonoma residents increased from 18 percent to 36 percent. A new carpool lane in the Santa Rosa area opened in November 2002.

Of those commuters who have a carpool lane along their route, San Francisco and Solano residents are the most likely to use it. Solano County commuters make the longest trips and many of them travel along the congested Interstate 80 corridor where the carpool lane offers a significant advantage. In three counties (Sonoma, Santa Clara and Alameda), 90 percent or more of respondents indicated the carpool lane saves them time. San Francisco residents were the least likely to indicate carpool lanes saved them time.

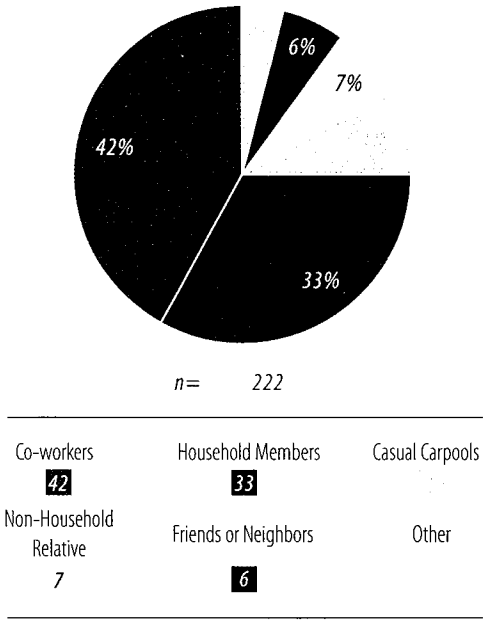
The question which elicited the most varied response (when looked at on a county-by-county basis) addressed the influence of the carpool lanes on a respondent's decision to carpool or use transit. Alameda and San Mateo residents were most heavily influenced by the presence of carpool lanes on their

route to work. San Francisco and Sonoma county residents were the least likely to indicate the carpool lane influenced their choice of travel mode.

TABLE 10
CARPOOL LANE INFLUENCE BY COUNTY

County	Access to Carpool Lane	Use of Carpool Lane	Save Time	Influence Decision
Alameda	49%	21%	90%	70%
Contra Costa	53%	16%	85%	59%
Marin	54%	22%	81%	47%
Napa	12%	24%	82%	46%
San Francisco	24%	38%	72%	33%
San Mateo	25%	16%	88%	63%
Santa Clara	58%	23%	91%	45%
Solano	30%	32%	79%	55%
Sonoma	36%	24%	94%	32%
n=	*3,537*	*1,348*	*305*	*302*
Region	43%	22%	86%	51%

FIGURE 10
CARPOOL MAKE UP



CARPOOL COMPOSITION

The average carpool size is 2.4 persons (including the driver). If vanpoolers are included in the calculation the average increases to 2.7 persons per vehicle. For vanpools only, the average is eight and a half persons per van. Co-workers are the most common type of participant in a carpool followed by household members (Figure 10). Casual carpoolers (i.e., carpools which are formed near transit stops on an informal basis with different drivers and passengers each day) make up approximately 8 percent of carpools. More than 60 percent of carpoolers have been participating in a carpool for more than two years (Figure 11).

TELECOMMUTING (TELE-WORK)

About a quarter (23 percent) of respondents have the option to telecommute rather than travel to work. This has been very consistent over the last three years with between 22 percent and 24 percent of employees having the option to telecommute. About 77 percent of respondents who have the option to telecommute take advantage of it. This is down slightly from last year when just over 80 percent of respondents exercised the option to telecommute, but more similar to earlier years. Of those who telecommute:

- 15 percent do so one day per month,
- 45 percent do so two to four days per month,
- 41 percent do so five or more days per month.

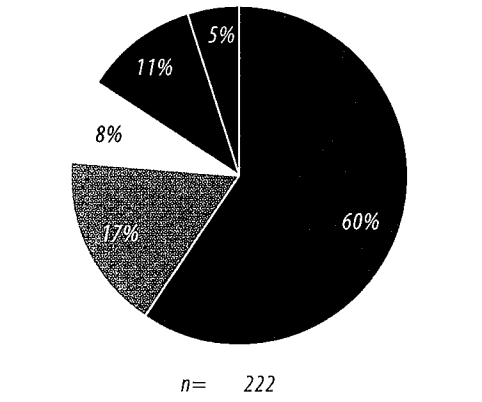
The average telecommuter does so about five and a half days per month. This is an increase from last year but more in line with previous years where the average was between five and six days per month.

Since one goal of telecommuting is to reduce vehicle trips, respondents were asked if they made more, the same or fewer trips on days when they telecommute compared with days when they commuted to work. In 2003, about two of three telecommuters reported making fewer trips (Table 11). Although there have been changes from year to year, the long-term pattern is clear—most telecommuters make fewer trips on days they telecommute.

TABLE 11
TRIPS MADE ON TELECOMMUTING DAYS

	1998	1999	2000	2001	2002	2003
Fewer	60%	67%	74%	57%	69%	66%
Same	35%	24%	20%	31%	22%	28%
More	5%	9%	7%	13%	9%	6%
n=	*159*	*674*	*645*	*571*	*726*	*713*

FIGURE 11
CARPOOL DURATION



TRAVEL MODE CHOICE

this section looks at why commuters choose specific modes, changing commute conditions, the ease of using specific modes and parking and employer incentives

WHY COMMUTERS CHOOSE SPECIFIC MODES

"Travel time to work," "needing a vehicle to transport children," "difficulty finding carpool partners" and "a comfortable commute" top the lists of reasons commuters choose a particular mode of travel. Respondents were asked in an open-ended format to describe their reasons for using their primary commute mode. The responses are shown in Table 12 for each of the four clustered mode categories—commuters who drive alone, carpool, take transit and use "other modes." The reasons cited for using a particular mode varied considerably for each mode.

Commuters who drive alone were most likely to tell us they "could not find anyone to carpool with," "the irregular nature of their work schedule required the flexibility associated with driving alone" and there were really "not any practical transit options for their commute." Combining those three reasons probably provides the most accurate picture of why most commuters choose to drive alone. It is difficult to find carpool partners or use public transit when their job and lifestyle are better suited to the flexibility inherent in driving alone. The top four reasons cited this year are identical to the top four reasons cited last year. One reason that moved up substantially on the list was driving is "easiest and fastest"—another indicator of lessened congestion as a result of the slow economy and roadway improvements.

Carpoolers provided the longest list of reasons for selecting their mode. The "lack of practical transit options" and "the need to transport kids"[5] were the two most commonly cited reasons for carpooling. "Keeping commuting costs down" by sharing the driving expenses and "reduced travel time" (presumably by using carpool lanes) were the next two most common reasons for carpooling. Like drive-alone commuters, carpoolers also mentioned driving is easier. Last year "driving is easy" was not even on the list of reasons commuters chose for carpooling.

[5] Respondents who initially indicated they drive alone, but later indicated they have others in the car with them three to five days per week were reclassified as carpools.

TABLE 12
REASONS FOR USING COMMUTE MODE

Reasons for Driving Alone	
No one to carpool with	17%
Work hours/work schedule	16%
No practical transit options	16%
Need vehicle during work	11%
Driving is easiest and fastest	10%
Travel time to work	7%
Comfort/relaxation	5%
Need vehicle before/after work	4%
Come and go as I please	2%
Not being dependent on others	2%
Commuting costs	1%
Need vehicle to transport kids	1%
Enjoy privacy	1%
Like to drive	1%
Other	7%

n=2,262

Reasons for Carpooling	
Need vehicle to transport kids	17%
No practical transit options	13%
Commuting costs	8%
Travel time to work	7%
Driving is easiest and fastest	7%
Need vehicle during work	7%
Comfort/relaxation	6%
Work hours/work schedule	5%
Need vehicle before/after work	4%
Better for environment	3%
Use carpool lane	2%
Enjoy company	2%
Don't own a car	1%
Not being dependent on others	1%
Come and go as I please	1%
Safety	1%
Other	13%

n=644

Reasons for Using Transit	
Comfort/relaxation	16%
Commuting costs	13%
Travel time to work	12%
Don't own a car	11%
Parking availability/cost	11%
No practical transit options	6%
Stress	4%
Better for environment	3%
Work hours/work schedule	1%
Other	21%

n=429

Reasons for Using Other Modes	
Travel time to work	19%
Comfort/relaxation	13%
Commuting costs	9%
Better for Environment	7%
Don't own a car	6%
No practical transit options	5%
Stress	3%
Parking availability/cost	2%
Other	33%

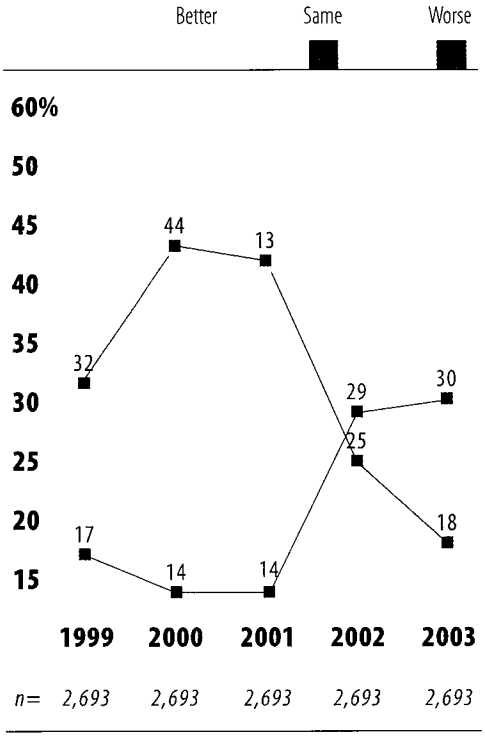
n=160

There are five reasons that top the list transit riders provided. Although the order changed somewhat within the top five, they are the same five reasons cited in 2002. A "comfortable and relaxing commute" was the most commonly cited reason for using transit this year. While some drive-alone commuters also mentioned they found their mode

comfortable and relaxing, there were several reasons which distinguish transit from driving alone. Part of the top five list for transit but not part of the drive alone list, were commuting costs, not owning a car and parking costs. There was an unusually large "other" response for the transit mode group. A good number of the "other" responses related to discounts available for the use of transit (e.g., Commuter Checks or other employer-sponsored discounts).

For users of "other modes," such as bicycling and walking, two responses appeared in double digits at the top of the list. "Travel time to work" was cited by one of five respondents and "a more comfortable, relaxing commute" was cited by 13 percent of respondents. Commuting costs and a concern for the environment were also near the top of the list. As with the transit group, there was an unusually large "other" response. Some of the reasons included in this "other" category were "living close to work," "enjoy walking or biking when the weather is good," "more convenient than other modes" and "for exercise."

FIGURE 12
COMMUTE CONDITIONS



CHANGING COMMUTE CONDITIONS

For the first three years (1999–2001) which data were collected on respondents' perceptions of commute conditions relative to a year earlier, the trend was clear. Each year conditions were getting worse. In 2002, commute conditions began to change—for the better. The percentage of respondents indicating conditions were "better" in 2002 was greater than the percentage of respondents indicating conditions were "worse" for the first time. In 2003, respondents' perceptions of their commute conditions continued to improve. A slightly higher percentage of commuters indicated conditions had improved and fewer respondents indicated conditions had gotten worse (Figure 12). While there may be a number of factors contributing to this finding, such as improved transit operations and roadway improvements, it is likely the slower economy, fewer jobs and consequently fewer commuters are a major factor.

Prior to last year, at the top of the list of reasons for improved commute conditions was a "change in home or job location." In other words, conditions had not really improved but individuals had made choices that improved their commute. For the last two years, however, respondents have been clear: "traffic is lighter" (Table 13). Between 1999 and 2000 the trend was beginning to emerge as the percentage mentioning lighter traffic had increased from 16 percent to 26 percent. Last year it jumped 60 percent and this year it is at almost 50 percent. For those whose commute had gotten worse, "heavier

traffic" was once again the most commonly cited reason. Just over half indicated traffic was heavier, however, between 1999 and 2001 the percentage of respondents indicating their commute was worse because of heavier traffic was in the mid to lower 70 percent range.

TABLE 13
HOW COMMUTE HAS GOTTEN BETTER OR WORSE

Better		Worse	
Traffic lighter	49%	**Traffic heavier**	52%
Moved home/job location	14%	**Construction delays**	9%
Roadway improvements	10%	**Moved home/job location**	8%
Changed route	6%	**Transit slower/crowded**	7%
Better transit service	4%	**Road maintenance**	4%
Travel at different time	3%	**Changed route**	3%
Changed mode	3%	**Travel at different time**	1%
Less road work	2%	**Changed mode**	1%
Other	9%	**Other**	15%
n=1,059		*n=635*	

Changing commute conditions for each of the four clustered commute modes are shown in Table 14. Carpoolers were more likely to indicate conditions had improved. Transit and "other" mode users were the most likely to indicate conditions had not changed. As in the past year, respondents in automobiles (driving alone or carpooling) were more likely to be the ones indicating conditions had gotten worse.

TABLE 14
CHANGE IN COMMUTE CONDITIONS BY MODE

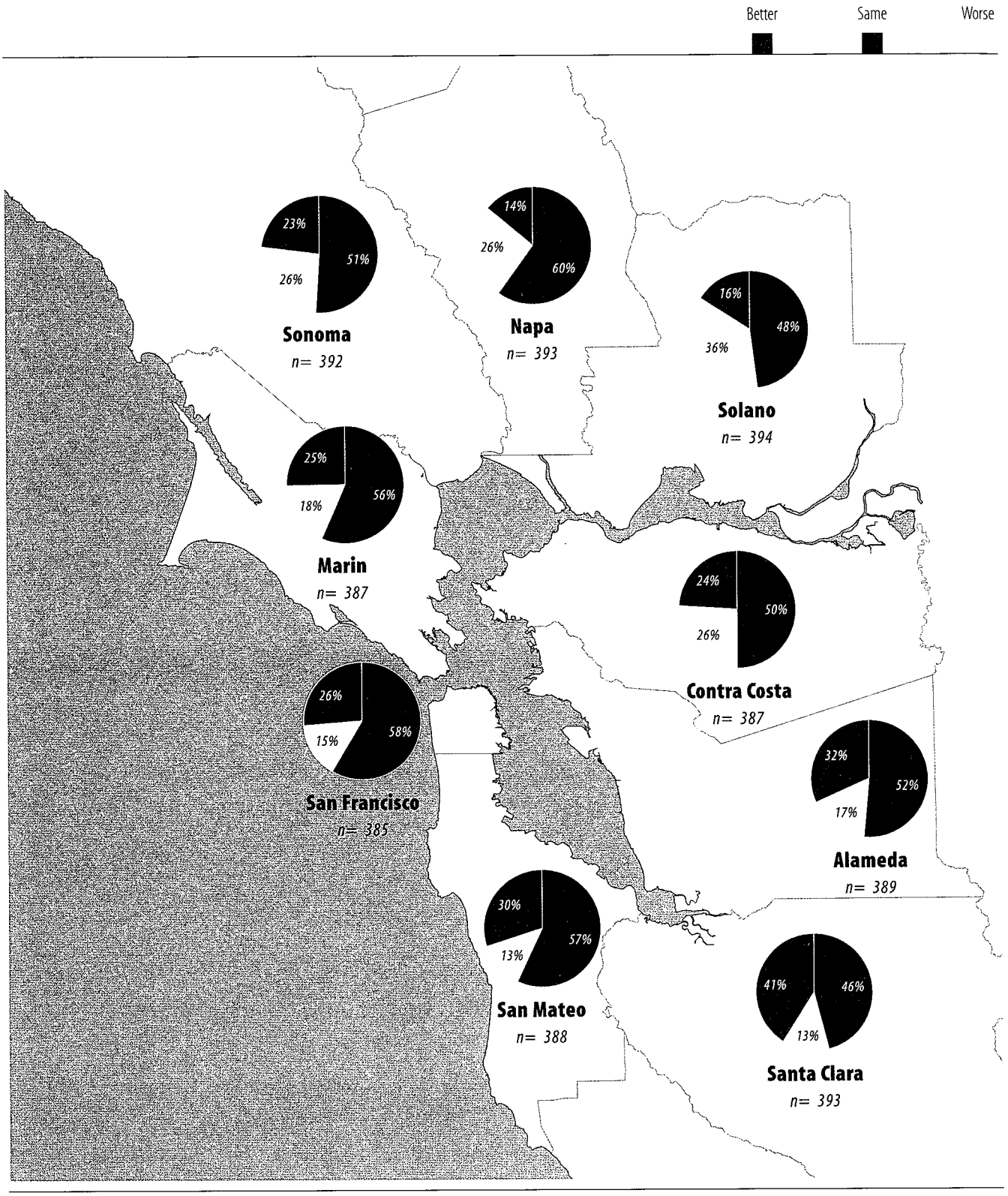
	Drive Alone	Carpool	Transit	Other
Better	30%	35%	23%	29%
Same	51%	45%	62%	58%
Worse	19%	20%	15%	13%
n=	*2,238*	*634*	*419*	*228*

COUNTY COMPARISONS

Respondents from five of nine counties were more likely to report improved conditions compared with last year. Commuters who live in Santa Clara and Alameda counties were most likely to report improved commute conditions (Figure 13). The biggest improvements were in Santa Clara (41 percent indicating conditions were better than a year

FIGURE 13

CHANGE IN COMMUTE CONDITIONS BY COUNTY



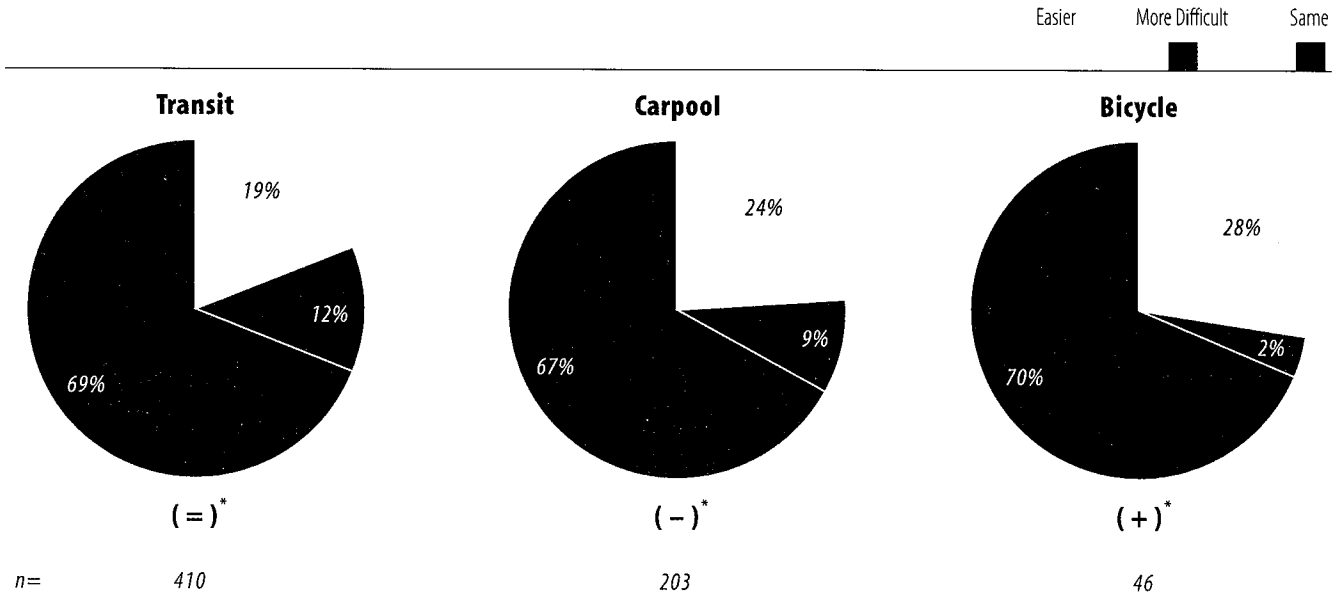
ago), Alameda (32 percent) and San Mateo (30 percent). Commuters who live in Napa and Sonoma counties were the least likely to report improved conditions. Respondents from Solano were most likely to report conditions had gotten worse. It appears likely that there is a connection between changes in employment within counties and perceptions of commute conditions within those counties. According to the California Employment Development Department job losses in the San Jose metro area in 2001 and 2002 amounted to 16 percent of peak employment while the North Bay has fallen by less than two percent.

EASE OF USING SPECIFIC MODES

Respondents commuting by transit, carpool or bicycle on a regular basis were asked if it is easier, about the same or more difficult to use those modes now than it was a year ago. As was the case last year, carpoolers and bicycle commuters were the most positive about the use of their modes (Figure 14). Very few bicycle commuters (two percent) indicated conditions were worse this year compared with a year earlier. A higher percentage of respondents indicated it was no more or less easy (i.e., essentially the same) to use transit, carpool or bicycle to work. Overall, results are similar to last year.

FIGURE 14

EASE OF USING TRANSIT, CARPOOLING AND BICYCLING FOR WORK TRIP



*Changes from last year range from (++) to (––) with (++) being much better conditions, (=) being about the same as last year and (––) being much worse than last year.

For those respondents who indicated using transit, carpooling or bicycling was easier or more difficult, a follow-up question was asked to determine why their experience had changed. The most frequently cited reasons are shown in Figure 15. "Improvements in reliability and frequency" topped the list of positive transit responses. For those who found transit more difficult to use, the opposite was true—transit service was "less reliable and frequent."

FIGURE 15

HOW USING TRANSIT HAS GOTTEN...

TRANSIT

EASIER *n=76*	• service reliability or frequency has improved • changed home or work location • new service has been added
MORE DIFFICULT *n=45*	• service is less reliable • service cut • service is less frequent

HOW CARPOOLING HAS GOTTEN...

CARPOOL

EASIER *n=47*	• more people to share ride with • changed home or work location • new carpool lane on commute
MORE DIFFICULT *n=18*	• traffic is worse • partners no longer available

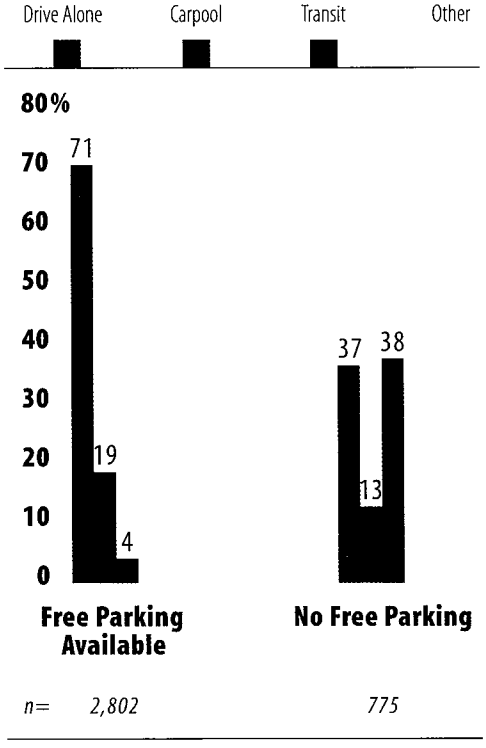
HOW BICYCLING HAS GOTTEN...

BICYCLE

EASIER *n=13*	• new bike lane • changed home or work location • improved facilities

FIGURE 16

FREE PARKING AND TRAVEL MODE



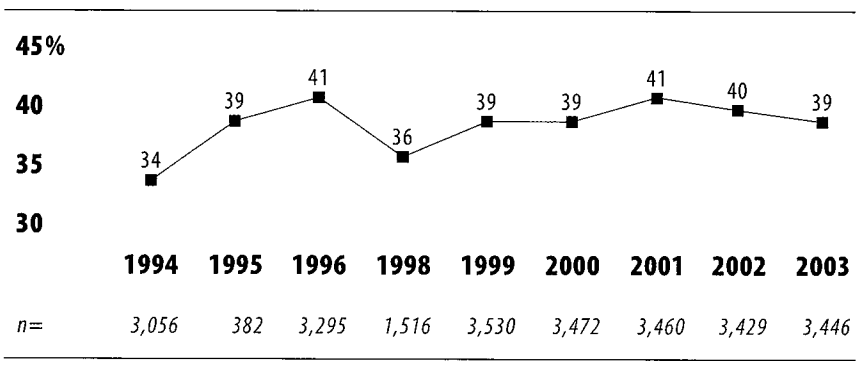
A greater availability of partners was the most frequently cited positive response by carpoolers. Increasing traffic was the most common response for respondents who felt carpooling had become more difficult. Although the sample size is small, new bike lanes were cited by bicycle commuters as an improvement that made their bicycle commute easier.

PARKING AND EMPLOYER INCENTIVES

Identical to last year and similar to previous years almost eight of 10 respondents (78 percent) have free all-day parking available at or near their worksite. The influence on mode choice of destinations with and without free parking is substantial.[6] Locations with free parking have a drive-alone rate

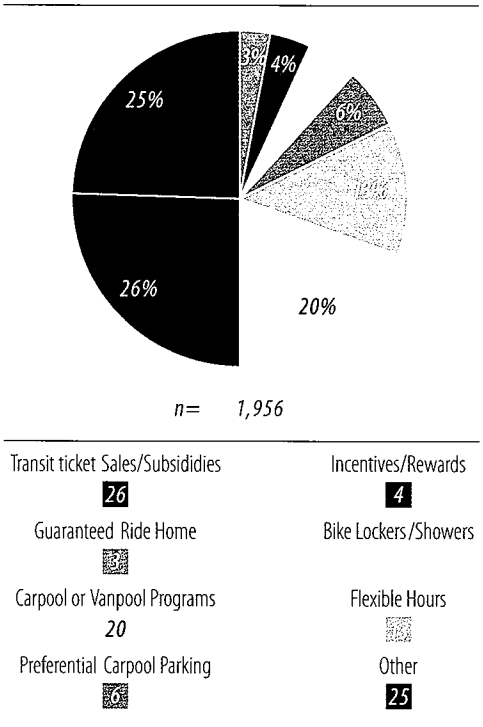
of 71 percent, while those without free parking have a drive-alone rate of 37 percent (Figure 16). The difference in transit use is even greater than the difference in the drive-alone rate. For those with free parking, the transit use rate is four percent; for those without, it jumps to 38 percent. The effect of paid parking (and the services associated with densely populated job centers) on the decision to drive one's car or use transit is substantial. The influence of free parking on the decision to carpool is less obvious.

FIGURE 17
EMPLOYERS WHO ENCOURAGE USE OF COMMUTE ALTERNATIVES



The percentage of employers who encourage employees to use transit, carpool, bicycle and walk to work remains consistent with earlier years (Figure 17). *Commute Profile* data provide only an estimate of employer involvement because it is based on respondents' awareness and understanding of what their employer does. The sampling methodology is also designed to be representative of commuters from the nine counties—not necessarily a representative sample of all Bay Area employers. With this consideration, the data do indicate that employers remain involved in providing commute assistance to their employees. The most common types of programs employers operate to encourage the use of commute alternatives are transit sales and/or subsidies and carpool or vanpool programs (Figure 18).

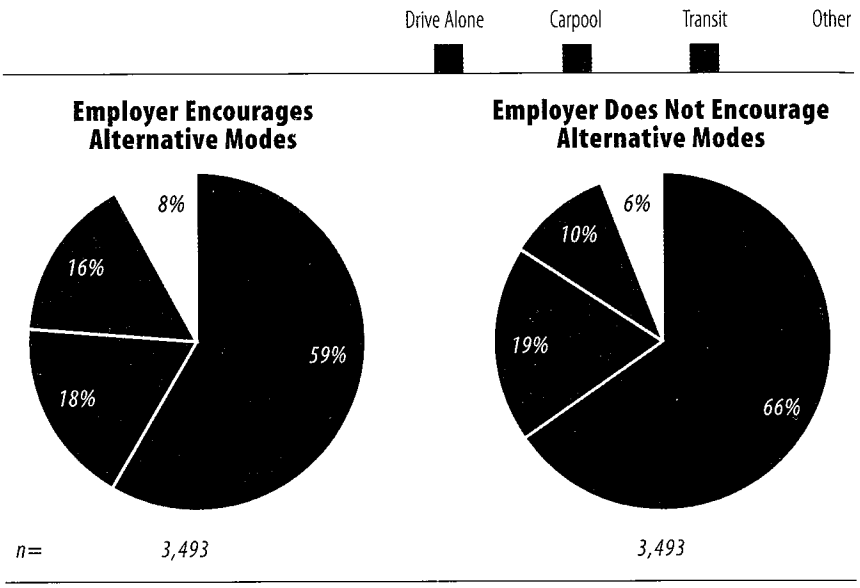
FIGURE 18
TYPES OF EMPLOYER ENCOURAGEMENT



The drive-alone rate is about seven percent lower at employer sites where the use of alternatives is encouraged (Figure 19). This is identical to last year, up somewhat from two years ago when the difference was only four percent, but close

[6] Although parking is the variable identified here, other conditions associated with parking are likely to have an influence on mode choice. In other words, paid parking may not be the causative variable itself—it may simply identify areas with specific characteristics. For example, in areas such as downtown San Francisco where free parking is scarce, there is also more transit service, more amenities within walking distance of offices and significant local congestion. The combination of conditions is what most likely influences behavior rather than any single factor.

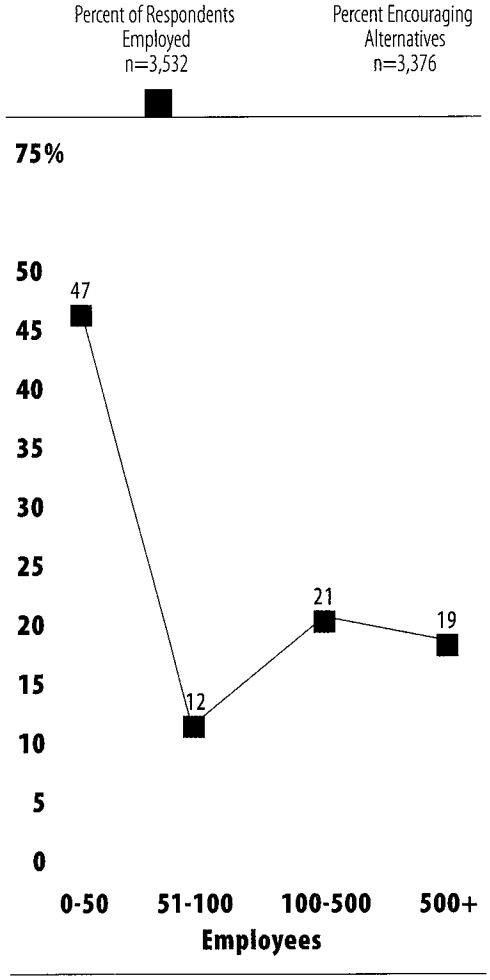
FIGURE 19
COMMUTE MODES WITH AND WITHOUT EMPLOYER ENCOURAGEMENT



to 2000 when the drive-alone rate was eight percent lower where employers encourage the use of alternatives to driving alone. The influence of employer encouragement appears to be strongest among smaller employers. The drive-alone rate at smaller employer worksites (100 or fewer) that encourage the use of alternate modes is 51 percent. It is 66 percent at smaller employer sites that do not encourage the use of alternative modes. The difference is less pronounced with larger employers (more than 100 employees). The drive-alone rate is 63 percent at employer site that encourage the use of alternatives and 67 percent where commute alternative use is not encouraged.

Smaller employers, those with 50 or fewer employees, accounted for the largest percentage of respondents (Figure 20); just under half (47 percent) of respondents work for employers with 100 or fewer employees. The likelihood an employer will operate a program that encourages employees to use commute alternatives increases with employer size. Less than a quarter of companies with 50 or fewer employees operate a commute incentive program while almost three quarters (74 percent) of larger companies (more than 500) do something to encourage the use of commute alternatives.

FIGURE 20
EMPLOYER CHARACTERISTICS BY NUMBER OF EMPLOYEES



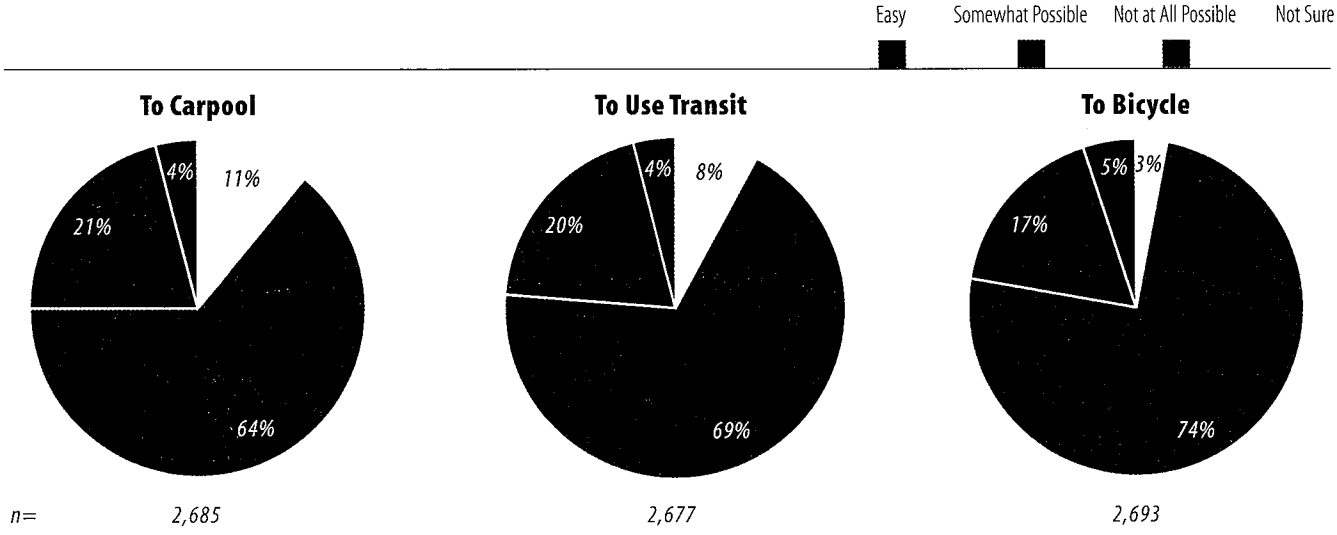
ASSESSING MARKET DEMAND

this section discusses the use of commute alternatives, characteristics of commuters more likely to use alternative modes, impediments to the use of commute alternatives and types of traveler information desired

LIKELIHOOD OF COMMUTE ALTERNATIVE USE

Driving by oneself to work is the choice of most Bay Area commuters. Drive-alone respondents to Commute Profile were asked how possible it would be for them to carpool, use transit or ride a bike to work at least one or two days a week. Most drive-alone commuters indicated it is "not at all possible" to try an alternative (Figure 21). For those who did indicate options to driving alone might be feasible, carpooling was the most popular of the proposed alternatives with approximately one in four respondents indicating it is "easy" to "somewhat possible" for them to carpool one or two days a week.

FIGURE 21
HOW POSSIBLE WOULD IT BE TO USE AN ALTERNATIVE TRAVEL MODE



Over the past five years, an increasingly more positive attitude toward the use of transit and bicycling has been evolving. The number of respondents indicating it would be "easy" to "somewhat possible" to use transit has increased. In 1999, it was 13 percent; in 2000 it went up to 18 percent and now it is up to 24 percent (Table 15). A similar trend has emerged with regard to bicycling to work. In 1999 and 2000, about 12 percent to 13 percent of respondents felt bicycling was a feasible option. In 2003, the group who sees bicycling as a feasible option has grown to 22 percent.

Driving alone continues to dominate the commute mode market and encouraging the use of other modes can sometimes feel a bit futile. The data presented here does, however, show an encouraging trend of more commuters at least having a positive attitude toward the potential use of options to driving alone.

TABLE 15
ATTITUDE TOWARD USE OF TRANSIT AND BICYCLING

	1999	2000	2001	2002	2003
Easy to Somewhat Possible to Use Transit	13%	18%	22%	21%	24%
n=	*2,216*	*2,262*	*3,095*	*2,817*	*2,677*
Easy to Somewhat Possible to Bicycle	12%	13%	20%	19%	22%
n=	*2,233*	*2,674*	*3,544*	*2,824*	*2,693*

IMPEDIMENTS TO THE USE OF COMMUTE ALTERNATIVES

The reasons commuters find it difficult to use alternatives to driving alone are shown in Figure 22. The most common reasons respondents cited for not being able to carpool include "difficulty finding partners" and the "flexibility needed to accommodate their irregular work hours." Respondents found using transit to get to work challenging because of the "lack of direct service along their route to work" and the "additional time required to make the trip." When considering the bicycle as an option, most commuters feel it is just "too far to ride their bike to work." Even if commuters who travel 10 miles or less to work are selected, "too far to ride" is still the primary concern; the number of respondents giving that reason does, however, drop from 32 percent to 17 percent. Looking at respondents who travel five miles or fewer drops it to eight percent, and it becomes the fifth most commonly cited deterrent on the list. Respondents also indicated "safety on the road" was a concern. The average commute distance for respondents who cited distance as a deterrent to bicycling was 25 miles (one-way). This compares with an average distance of 13 miles for those who did not mention distance as a factor. For all three modes (carpooling, transit and bicycling), respondents indicated the "need for a car at work" made it difficult to use an alternative.

FIGURE 22

WHY IS IT DIFFICULT TO CARPOOL TO WORK?

- Can't find partners to carpool with *(40%)*
- Irregular work hours *(20%)*
- Need my car for work *(11%)*

WHY IS IT DIFFICULT TO USE TRANSIT TO GET TO WORK?

- No transit service along my route to work *(23%)*
- Takes too much time compared with driving *(23%)*
- Need my car for work *(13%)*

WHY IS IT DIFFICULT TO BICYCLE TO WORK?

- Too far to bicycle *(32%)*
- I don't feel safe bicycling to work *(12%)*
- Need my car for work *(11%)*

CHARACTERISTICS OF COMMUTERS WHO ARE MORE LIKELY TO USE AN ALTERNATIVE

Knowing what impediments need to be addressed to encourage the use of commute alternatives is helpful. It is also valuable to know some characteristics of the respondents most likely to try alternatives to driving alone as a step in the process of crafting messages which will get their attention.

The data gathered in *Commute Profile* offer some insights into which subgroups of commuters indicated a higher level of interest in the use of alternatives to driving alone. In addition to the demographic variables shown in Table 17, for a second year six other variables were examined to see if some subgroups were more likely than others to indicate carpooling, riding transit or bicycling to work were possibilities for their commute. Those variables were:

- flexibility of arrival time at home and work
- access to carpool lanes along route to work
- availability of free parking at the worksite
- size of employer worksite
- commute trip distance
- county of origin.

Those respondents with a greater degree of flexibility in their work and home arrival times were more likely to indicate transit or bicycling were a possible option for them. Transit

use appeared more feasible for this group both last year and this year, carpooling only last year and bicycling only this year.

Access to carpool lanes did not seem to influence responses this year or last year. Respondents without free parking at the worksite were more likely to indicate transit was a possibility for their commute both last year and this year. The opposite was true for bicycling; it seemed more feasible to bicycle to work to respondents at worksite where free parking was available. Employer size (i.e., worksites with more than or less than 100 employees) did not seem to influence the individual's perception of using any of the modes this year. Last year carpooling appeared to be more feasible for employees of larger companies.

Data from last year and this year show no difference in carpooling interest based on commute trip distance. The potential use of transit, on the other hand, shows a pretty clear pattern of declining feasibility with distance (Table 16). Twenty-seven percent of commuters traveling six to 10 miles one-way indicated using transit was "easy" to "somewhat possible" while only 18 percent of commuters traveling over 40 miles one-way indicated the same. The possibility of commuting by bicycle, as one might expect, declines precipitously with distance. Forty-seven percent of short-distance commuters (five miles or less one-way) indicated bicycling was a potential option, while only six percent of longer-distance commuters (over 40 miles one-way) indicated bicycling was "easy" to "somewhat" possible. These findings are similar to last year.

TABLE 16
FEASIBILITY OF USING TRANSIT OR BICYCLING BY TRIP DISTANCE (miles, one-way)

	0-5	6-10	11-20	21-40	41+
Possible to Use Transit *n=2,677*	24%	27%	24%	19%	18%
Possible to Bicycle *n=2,693*	47%	25%	13%	8%	6%

County of origin also seemed to influence, to some extent, respondents' feelings about their commute options. Commuters from Solano and San Mateo were most positive about carpooling and those from Napa were least positive. These results, however, vary considerably from year to year—leading one to believe there is not a strong correlation between county of origin and perceived ability to carpool.

More consistent with previous years were San Francisco respondents' attitude toward the use of transit. San Francisco commuters, by a large margin, were once again the most likely to see transit as a possible commute option. Respondents from Solano and Napa were the least likely to view transit as a potential commute option. Again this is consistent with previous years—leading one to believe there is a stronger correlation between county of origin and perceived ability to use transit. Attitudes toward bicycling were also very similar to past years. Napa residents showed the most interest and Contra Costa and Solano residents the least.

Demographic information collected in *Commute Profile* can also provide some insights into higher potential customer groups. Understanding the demographics of these higher potential groups is helpful in developing a targeted approach to marketing services. Gender, age and income characteristics are summarized in Table 17 and compared with the characteristics of all drive-alone respondents as a control group.

TABLE 17
DEMOGRAPHICS OF HIGHER POTENTIAL ALTERNATIVE USERS

	Drive Alone Respondents	Higher Potential Carpool	Higher Potential Transit	Higher Potential Bicycle
Income of $65,000+	59%	57%	58%	63%
n=	*1,953*	*594*	*545*	*522*
Gender				
Male	53%	52%	50%	59%
Female	47%	48%	50%	41%
n=	*2,291*	*670*	*618*	*606*
Under age 40	38%	48%	39%	40%
n=	*2,264*	*659*	*612*	*600*

Respondents who were more likely to indicate carpooling was a potential option for their commute are also more likely to be under the age of 40. There is a 10 percentage point difference between all drive-alone respondents and higher potential carpoolers. This is consistent with the last few years. In past surveys, higher potential carpoolers have been somewhat more likely to be male. The difference has been between three and five percentage points higher. This year, however, there is no difference in the gender characteristics of the survey population of drive-alone commuters and the higher potential carpoolers.

Higher potential transit users show very little variation this year from other commuters who drive alone. In past surveys, there has been a definite tendency for higher potential transit users to be younger. The biggest difference this year is in the gender makeup, but even this is not great. The higher potential group is slightly more likely to be female. This is contrary to findings from past surveys when this group was actually slightly more likely to be male.

The most pronounced difference in demographic characteristics shows up among the potential bicycle commuters. While 53 percent of all respondents are male, 59 percent of the higher potential bicycle commuters are male; this is similar to but less exaggerated than previous years where there was an eight to nine percentage point difference between "all drive-alone respondents" and those in the higher potential bicycle group. In past surveys, higher potential bicycle commuters have tended to be younger. While that is still the case, this difference is less. This year there is a two percentage point difference—the last few years it has been in the five to 10 percentage point range. Potential bicycle commuters this year also tend to have somewhat higher incomes.

How does the intention of respondents compare with their actual behavior? Table 18 looks at the current travel modes based on age and gender. Females are more likely to currently be using a commute alternative, and carpooling appears to be their preferred mode. Carpool use is especially high among females under the age of 40. There is consistently (even if not dramatic) higher use of carpooling, transit and other modes among younger respondents. Last year's results are consistent with the data here showing younger commuters more likely to be using alternatives to driving alone.

TABLE 18
GENDER, AGE AND CURRENT TRAVEL MODE

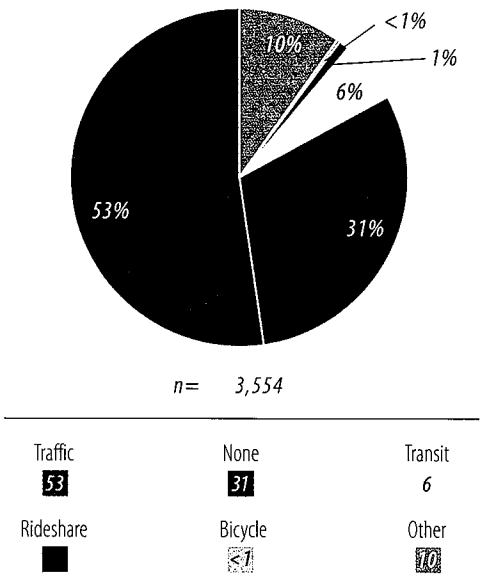
	Drive Alone	Carpool	Transit	Other
Males *n=1,824*	67%	16%	11%	7%
Under age 40 *n=817*	63%	16%	13%	8%
Over age 40 *n=991*	69%	15%	9%	6%
Females *n=1,785*	60%	20%	13%	7%
Under age 40 *n=687*	51%	25%	15%	9%
Over age 40 *n=1,066*	66%	17%	12%	5%

SERVICE INTERESTS

A few months prior to fielding the *Commute Profile 2003* survey, the MTC launched the new 511 telephone traveler information service. Just less than two percent of respondents had already tried the 511 information service prior to being contacted for *Commute Profile 2003*. Most of them had used the service to get traffic information. Respondents who had not used the 511 service were asked to elaborate on the types of information which interested them, or the types of information they commonly get from radio, television and the Internet. Figure 23 shows traffic information to be the most common type of information sought followed by transit and rideshare information. A fairly high percentage of respondents (31 percent) do not commonly turn to media sources for traveler information. Of those who do seek travel information, about 61 percent look for it once a day or more, about 26 percent look for it once a week or less and about 12 percent less than once a month.

Within the four main categories of information offered by the 511 service (traffic, transit, rideshare and bicycle), respondents were asked to further elaborate on the specific type of information they are most interested in having available (Table 19). Each of the four categories had one or two specific types of information that were of interest to a majority of respondents. Within the traffic category, a "map of roadway congestion" clearly topped the list. For those commuters who seek transit information, "schedules" (printed and real time) and "route maps" were of the most interest. "Casual carpool

FIGURE 23
PRIMARY TYPE OF TRAVEL INFORMATION SOUGHT FROM RADIO, TV AND INTERNET



information" and "carpool matching" were of interest to individuals looking for rideshare-related information. Finally, for the few respondents who were looking for bicycle information, "maps" and a "trip planner" were of most interest.

TABLE 19
TYPE OF TRAVEL INFORMATION DESIRED

Traffic	
Map of Roadway Congestion	63%
Information on Alternative Routes	15%
Estimated Driving Time	7%
Information on Alternative Modes	2%
HOV Lane Map	<1%
Information on FasTrak	<1%
Other	13%
n=1,835	

Transit	
Schedule and Route Maps	43%
Real-time Schedule Information	20%
Delays and Changes	11%
Trip Planning	8%
Fare Information	5%
How To Get To Popular Destinations	2%
Paratransit Information	2%
Other	10%
n=187	

Rideshare	
Casual Carpooling Information	35%
Carpool Matching	25%
Employer Provided Benefits	10%
Park and Ride Information	5%
Other	25%
n=16	

Biking	
Bike maps	36%
Bike Trip Planner	27%
Bicycle Safety Information	9%
Information about Bikes on Bridges	9%
Information about Bicycle Organizations	9%
Other	9%
n=6	

COUNTY PROFILES

The county section of *Commute Profile 2003* looks at each of the nine Bay Area counties separately, notes their unique commute characteristics, comments on the differences between them and identifies trends within the counties. Data from each county is compared with data from previous years, the Bay Area region as a whole and other individual counties. As discussed in detail in the methodology section of this report, each county analysis is based on a sample of 400 residents who are employed full-time outside the home. The data reviewed for each county are:

- Primary commute modes
- Occasional and connecting modes
- Commute distance and time
- Destination characteristics
- Perceptions of commute conditions and options

PRIMARY COMMUTE MODES

The "primary" mode is the means of travel used for the entire or longest segment of an individual's commute. Data are presented for all modes of travel—even those used by less than one percent of the respondents. Primary commute modes are also presented in a clustered[7] format to facilitate comparison over time. Data for some counties (where sample sizes have been large enough) are presented for 10 years. While there are many similarities between the counties, the narrative focuses on identifying key differences. These differences are clearly influenced by factors such as the limitations of transit service, employment patterns and commute distances. The narrative stops short of speculating on why these differences exist and focuses on identifying the differences.

OCCASIONAL AND CONNECTING MODES

Data were also collected and are discussed for each county on "occasional" and "connecting" modes used on a regular basis for a normal commute trip. An occasional mode is defined as a completely separate mode used on days when commuters do not use their primary mode. A connecting mode is defined as the mode or modes used in addition to the primary mode on

[7] "Drive Alone" includes motorcycles and taxis; "carpool" includes vanpools; "transit" includes buses, trains and ferryboats; and "other" includes bike, walk and telecommute.

a normal trip to work. The occasional and connecting mode data complement the primary mode information to provide a more complete picture of all modes commuters use to make their trips to work each day.

COMMUTE DISTANCE AND TIME

Commute distance and time shows the trip distance, length of time and travel speed of an average commute for each county. Average travel speed provides an indication of the levels of congestion (based on the assumption that slower speeds are indicative of greater congestion) respondents from specific counties experience. Data are presented for a number of years to provide a view of longitudinal trends.

DESTINATION CHARACTERISTICS

Although the *Commute Profile* sampling methodology is based on commuters' origins, a brief analysis is presented of some of the characteristics of the counties as commute destinations. Sample sizes are noted for each of the counties as a destination. Key destinations within the county, parking availability, employer size, employer programs which encourage commute alternatives use and telecommuting opportunities are examined.

PERCEPTION OF COMMUTE CONDITIONS AND OPTIONS

The perceptions of commute conditions and options are also included for each of the nine counties. This combination of information provides a general sense of how commuters in each county perceive their trips to work. The heading was chosen carefully to reflect that it is not a quantitative index or an "official" performance measure, but a summary of related data collected in *Commute Profile* based on respondents' perceptions. The perceptions of commute conditions and options include data from three separate survey questions.[8]

- The first question asked all respondents whether they felt their commute had gotten worse, better or stayed the same during the past year. It is based on their overall perception of how or if their commute has changed.

- The second question asked respondents who reported driving alone as their main commute mode, how possible it would be to use a commute alternative. The percentage of those who responded said it would be "easy" to "somewhat possible" to use one of the three modes examined in *Commute Profile* (carpool, transit or biking) is included in the table.

[8] It is important to note that because most respondents drive alone, the sample sizes for other subgroups (e.g., carpoolers, transit riders or bicyclists) may be small and, therefore, have higher margins of error.

- The third question asked respondents who were using a commute alternative whether their travel mode has become easier, more difficult or stayed the same in the past year. The percentage of commuters who reported their mode (either transit, carpool or bicycling) has gotten easier is included as a part of this table.

The data in each of the three sections was compared to regional responses, as well as those from *Commute Profile 2001* and *2002*. If the percentage of people who had a positive answer to any one of the questions was higher than the regional or *Commute Profile 2002* percentages, the county was awarded a positive (+) sign for improvement. If the percentages were lower, the county received a negative (–) sign, and if there was little to no difference an equal (=) sign was awarded. The signs were then added together to create a summary score for each county (Table 20). This approach allows us to compare perceptions among commuters from the different counties, and is not meant to be a comprehensive analysis of the success of transportation facilities and services in each county.

TABLE 20
PERCEPTIONS OF COMMUTE CONDITIONS AND OPTIONS

County	Summary Score 2001	Summary Score 2002	Summary Score 2003
Alameda	+1	+5	+2
Contra Costa	–3	–2	+2
Marin	–1	+1	=
Napa	=	–4	–1
San Francisco	+4	+2	+1
San Mateo	–3	–1	=
Santa Clara	+5	+2	+2
Solano	–2	–4	+1
Sonoma	–4	+3	+2

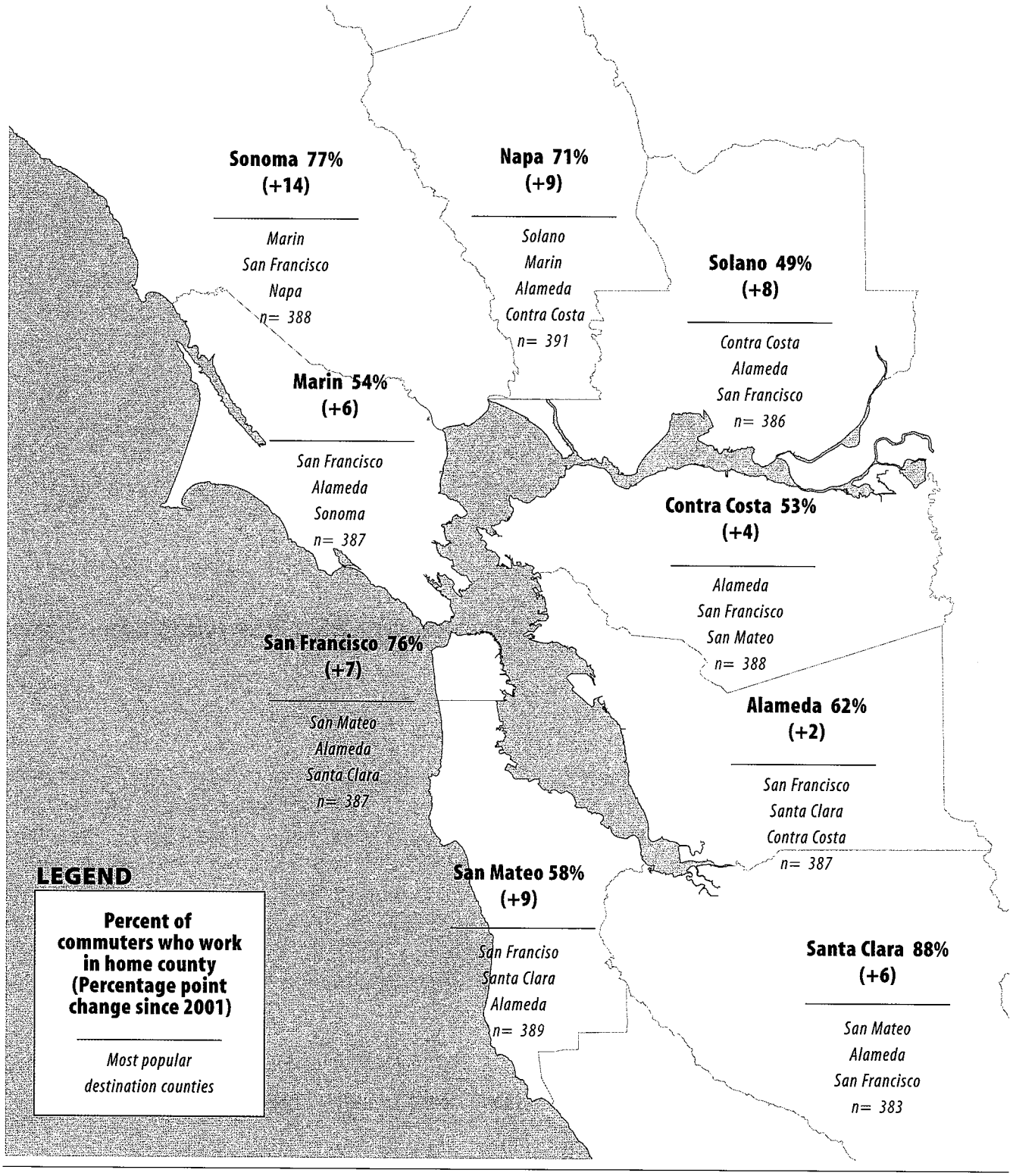
ORIGINS AND DESTINATIONS

The highest percentage of residents who live and work in the same county is from Santa Clara (Figure 24). Marin, Contra Costa and Solano counties have the lowest percentages of residents who live and work in the same county. The trend over the past three years has been for a greater percentage of respondents to live and work in the same county. For example, in Sonoma County, in 2001 63 percent lived and work there, 72 percent in 2002 and 77 percent in 2003. Between 2001 and 2003, all nine counties have shown an increase. Sonoma County showed the greatest change (an increase of 14 percentage points)

and Alameda the smallest (an increase of two percentage points)

FIGURE 24

PERCENT OF COMMUTERS WHO LIVE AND WORK IN HOME COUNTY



ALAMEDA COUNTY

TABLE 22
PRIMARY COMMUTE MODE

Drive Alone	61%
Carpool	17%
BART	11%
Bus	4%
Walk	4%
Telecommute	2%
Bicycle	2%
Ferry	<1%
Ace	<1%

n=400

PRIMARY COMMUTE MODES

Alameda County residents have the second lowest drive-alone rate in the region (Table 22)—only San Francisco residents have a lower drive-alone rate. Alameda residents also have the second overall highest use of transit for commute purposes. Contributing to the high overall use of transit is the region's highest use of BART (tied with Contra Costa at 11 percent). The rate of carpooling is about equal to the regional average. Alameda County residents are also strong participants in walking and bicycling modes. They have the highest percentage of bicycle commuters (along with San Francisco and Sonoma residents) and the second highest percentage of walkers after San Francisco.

Over the past year, the number of drive-alone commuters in Alameda County has declined by five percentage points (Table 23). Carpooling has also decreased, while both transit and other mode usage have become more popular. These trends began to emerge between 2001 and 2002 and have continued at an accelerated pace between 2002 and 2003.

Alameda County residents who commute by transit mentioned "travel time," "comfort" and "commuting costs" as the reasons for choosing that mode. Carpoolers most often cited "commuting costs" and "taking kids to school." Residents who drive alone to work were most likely to cite "having no one to carpool with," "a lack of practical transit options" and "needing a car at work" as reasons for their mode choice. Compared with the region, driving alone and carpool

TABLE 23
CLUSTERED MODES OVER TIME

	1993	1994	1996	1999	2000	2001	2002	2003
Drive Alone	62%	66%	65%	62%	63%	68%	66%	61%
Carpool	14%	16%	15%	16%	14%	20%	19%	17%
Transit	17%	13%	13%	18%	20%	10%	11%	15%
Other	7%	6%	7%	4%	4%	3%	5%	7%

n=approximately 400 each year

use are less common, transit use is more prevalent and "other" mode use is at the same level.

OCCASIONAL AND CONNECTING MODES

In addition to the primary commute modes, data on "occasional" modes (a completely separate mode used on days when commuters do not use their primary mode) and "connecting" modes (modes used in addition to the primary mode on a normal trip to work) were gathered for Alameda County residents. The use of occasional and connecting modes is more common in Alameda than most other counties. About eight percent of commuters in the county use an occasional mode and about 16 percent use a connecting mode—compared with seven percent and 12 percent for the region. Driving alone and BART are the two most common occasional modes. Driving alone is a common occasional mode in almost all counties; BART as an occasional mode is more common in Alameda than any other county. The most common connecting modes are the bus and driving alone. Alameda and San Francisco are the two counties where buses are one of the most common connecting modes.

COMMUTE DISTANCE AND TIME

The average commute time decreased by two minutes and the commute distance remained unchanged in 2003 (Figure 25). The result is an increase in estimated travel speed of approximately two miles per hour. Alameda County commuters are representative of the "typical" Bay Area commuter in terms of their travel time, distance and speed. One-way trip distance and travel speed are identical to the region-wide average, and travel time is within one minute of the region-wide average.

FIGURE 25
COMMUTE DISTANCE AND TIME

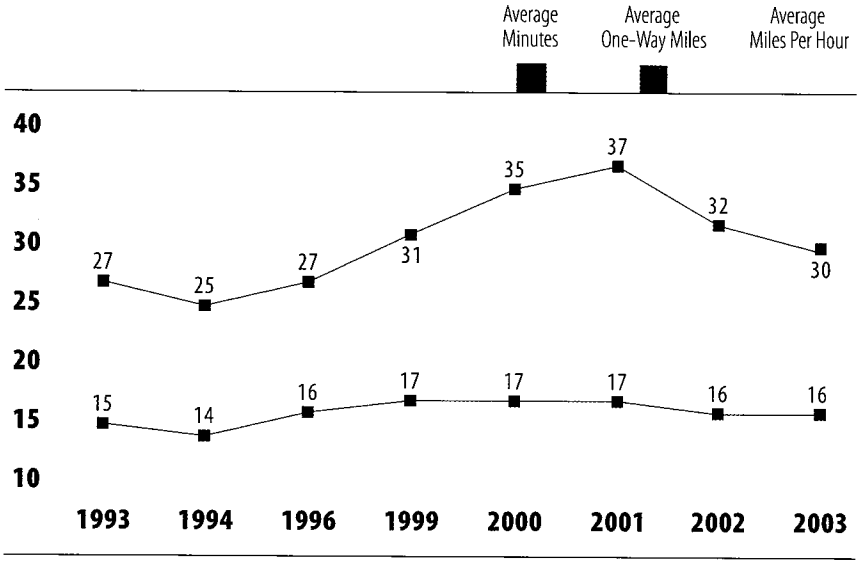


TABLE 24
MOST COMMON DESTINATIONS WITHIN ALAMEDA COUNTY

Zip Code (within the city of)
94612 (Oakland) Downtown, City Center
94538 (Fremont)
94545 (Hayward)
94577 (San Leandro)
94607 (Oakland) Port of Oakland
94588 (Pleasanton)
94703 (Berkeley)
94550 (Livermore)

DESTINATION CHARACTERISTICS[9]

About 19 percent of all *Commute Profile* respondents (based on the weighted regional data set) had a destination within Alameda County, and about 62 percent of Alameda County respondents live and work within the county. Oakland was the most common work destination within the county for *Commute Profile* respondents—showing up first and fifth on the list (Table 24). Fremont and Hayward were the next two most common destinations.

Commuters headed to Alameda are less likely, with the exception of San Francisco-bound commuters, than any others to find free parking at their worksite. One in four commuters within Alameda County does not have free parking at their worksite. In San Francisco, only one in three commuters has free parking. Commuters are also more likely to end up at a larger company in Alameda County. Forty-three percent of respondents work at an employer with more than 100 employees. Only commuters headed for Santa Clara County are more likely to end up at a large employer—46 percent of respondents destined for Santa Clara worked for employers with more than 100 employees.

[9] The sample size for respondents with a destination of Alameda was 441.

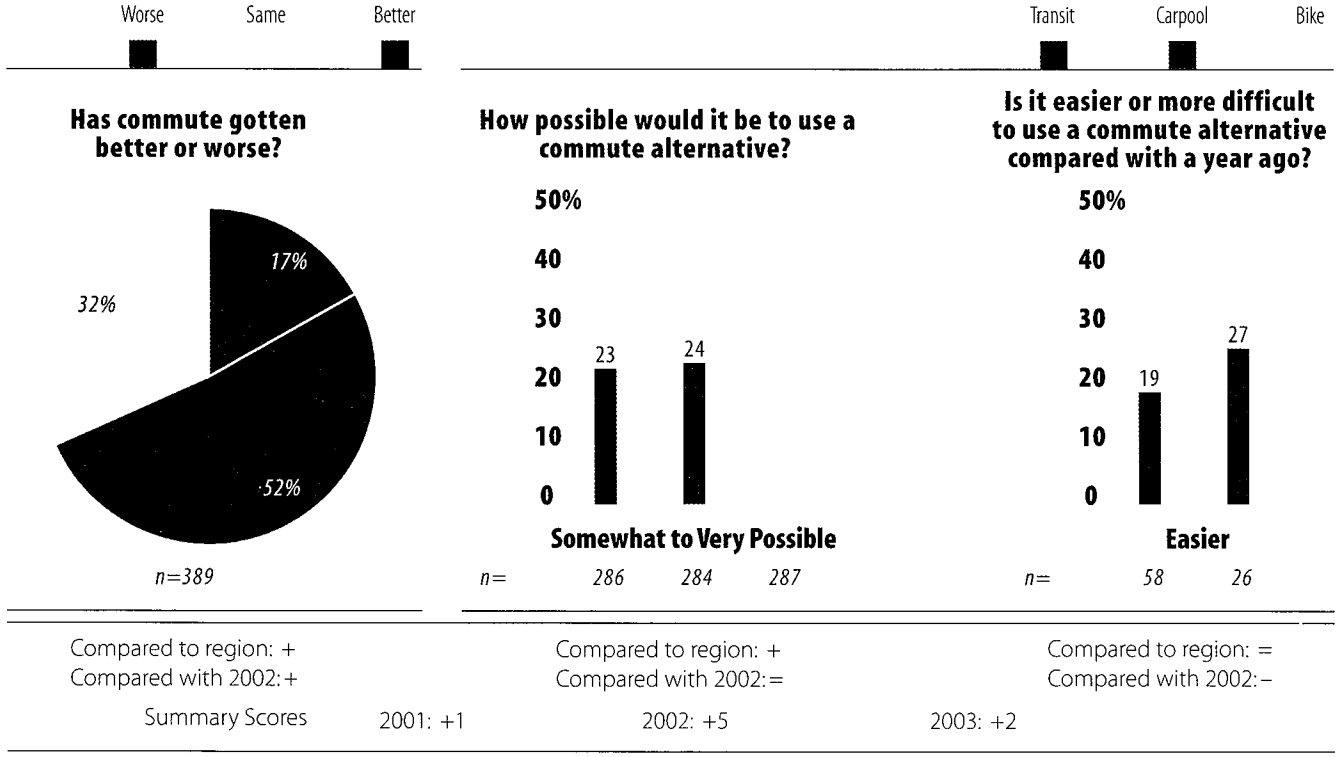
PERCEPTIONS OF COMMUTE CONDITIONS AND OPTIONS

Compared with a year ago and the perceptions of commuters from throughout the region, Alameda County residents again have the most positive perceptions of changes in their commute options and conditions (Figure 26). In 2002, that distinction was theirs alone; this year they share it with three other counties who also received a summary score of (+2) based on questions about current commute conditions, the accessibility to commute alternatives and the ease of use of specific modes.

Alameda respondents believe commute conditions have improved relative to the view of commuters from throughout the region; a higher percentage than last year also expressed the view conditions had improved over the last year. The main reasons cited for improved conditions were "less traffic" and "roadway improvements." The other area where Alameda scored positively was in the potential use of commute alternatives by respondents who were currently driving alone. The only negative comparison was of Alameda respondents who were currently using commute alternatives; they were less likely to indicate it being easier to use transit or carpool. The reasons cited were transit service was "less reliable" or had been "cut".

FIGURE 26

PERCEPTIONS OF COMMUTE CONDITIONS AND OPTIONS



CONTRA COSTA COUNTY

TABLE 25
PRIMARY COMMUTE MODE

Drive Alone	64%
Carpool	20%
BART	11%
Bus	2%
Telecommute	2%
Walk	1%
Vanpool	<1%
Bicycle	<1%
Motorcycle	<1%

n=400

PRIMARY COMMUTE MODES

Contra Costa County has the third lowest drive-alone rate in the Bay Area; only San Francisco with its robust transit systems and Alameda have lower drive-alone rates (Table 25). Contra Costa residents are also the second most likely to carpool in the region. Only Solano County residents are more likely to carpool. The reason behind the relatively low drive-alone rate is the high level of carpooling and also the highest level of BART ridership—tied with Alameda County at 11 percent. An extensive incentive program promoted within the county provides residents and employees with additional reasons to carpool, vanpool and take transit.

During the past two years the percentage of drive-alone commuters has dropped from 70 percent to 64 percent; this matches the lowest drive-alone rate recorded in 1993 (Table 26). The carpooling rate dropped a bit from a high recorded in 2002, but still shows an upward trend since 1994. Transit use, thanks to the high level of BART ridership mentioned earlier, has rebounded from a decline over the last couple years and increased by five percentage points. The main reasons Contra Costa respondents cite for driving alone is their "work hours vary too much to carpool or use transit," "there is not direct transit service along their route to work" and "it is difficult to find someone with whom to carpool." The reasons for using transit include comfort, travel time and reduced commute costs. Compared with the region, driving alone is at the same level, carpooling and transit use are more common and "other" mode use is less prevalent.

TABLE 26
CLUSTERED MODES OVER TIME

	1993	1994	1996	1999	2000	2001	2002	2003
Drive Alone	64%	69%	67%	66%	66%	70%	66%	64%
Carpool	22%	17%	17%	13%	16%	19%	23%	20%
Transit	12%	12%	15%	16%	16%	9%	8%	13%
Other	3%	2%	2%	5%	3%	2%	4%	4%

n=approximately 400 each year

OCCASIONAL AND CONNECTING MODES

"Occasional" modes and "connecting" modes were also tracked for respondents from Contra Costa. An occasional mode is used on days when commuters do not use their primary mode and a connecting mode is used in addition to the primary mode on a normal trip to work. The use of occasional modes is less common among Contra Costa residents than Bay Area residents in general. The use of connecting modes is more common in Contra Costa than most other counties. About four percent of commuters in the county use an occasional mode and about 17 percent use a connecting mode—compared with seven percent and 12 percent respectively for the region.

Driving alone and telecommuting are the two most common occasional modes. These two methods of travel are the most common occasional modes in six of the nine counties. The most common connecting modes are driving alone, BART and the bus in that order. Driving alone is the most common connecting mode used in seven of the nine counties.

COMMUTE DISTANCE AND TIME

Both commute time and distance decreased substantially in 2002, and although they are still down from 2000-2001 levels they are up a bit from 2002 (Figure 27). The trend of increasing travel time and distance between 1996 and 2001 appears to be turning into a trend of decreasing travel time and distance as 2002-2003 show a decline from the years just prior. Travel speed has been increasing steadily, at the rate of one to three miles per hour per year, since 2000. Contra Costa commuters have the longest travel time of all nine Bay Area counties (38 minutes).

FIGURE 27
COMMUTE DISTANCE AND TIME

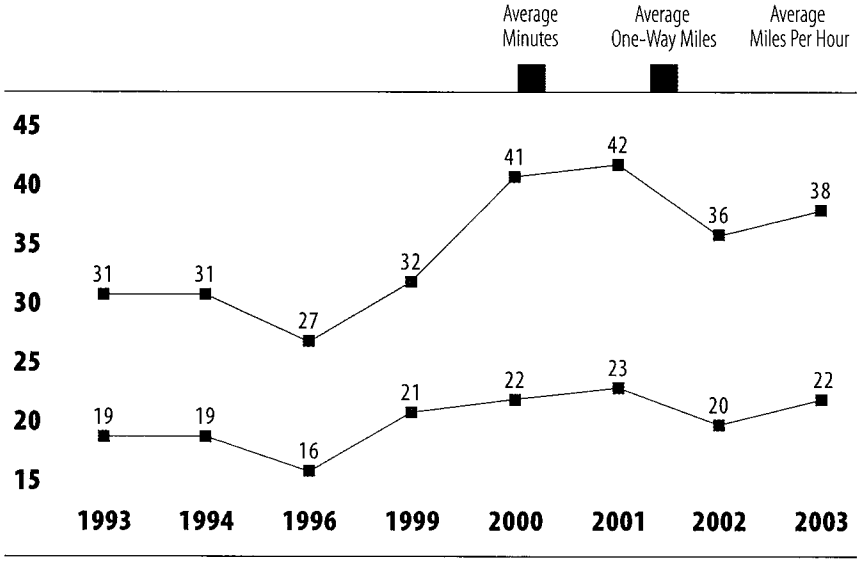


TABLE 27
MOST COMMON DESTINATIONS WITHIN CONTRA COSTA COUNTY

Zip Code (within the city of)
94520 (Concord)
94596 (Walnut Creek)
94553 (Martinez)
94804 (Richmond)
94583 (San Ramon)
94518 (Concord)
94565 (Pittsburg)

DESTINATION CHARACTERISTICS [10]

Contra Costa County is one of the largest exporters of commuters. Only 53 percent of respondents live and work within the county. Only Solano County exports more commuters—about 49 percent live and work within that county. About 10 percent of *Commute Profile* respondents (based on the weighted regional data set) had a destination within Contra Costa County. Zip codes in Concord and Walnut Creek are the two most common destinations (Table 27) of *Commute Profile* respondents.

Commuters headed to or traveling within the county have good odds of finding free parking available at their worksite. Ninety-four percent of respondents who work in Contra Costa indicated they have free parking at or near their worksite. Only in Napa County, where 95 percent have free parking available, are commuters more likely to have free parking at or near their worksite. About 65 percent of respondents worked at companies with fewer than 100 employees—this is typical of respondents from other counties. Contra Costa employers are more likely to provide programs which encourage their employees to use options to driving alone than employers from other counties. Respondents indicated about 40 percent of their employers have on-site programs.

[10] The sample size for respondents with a destination of Contra Costa was 348.

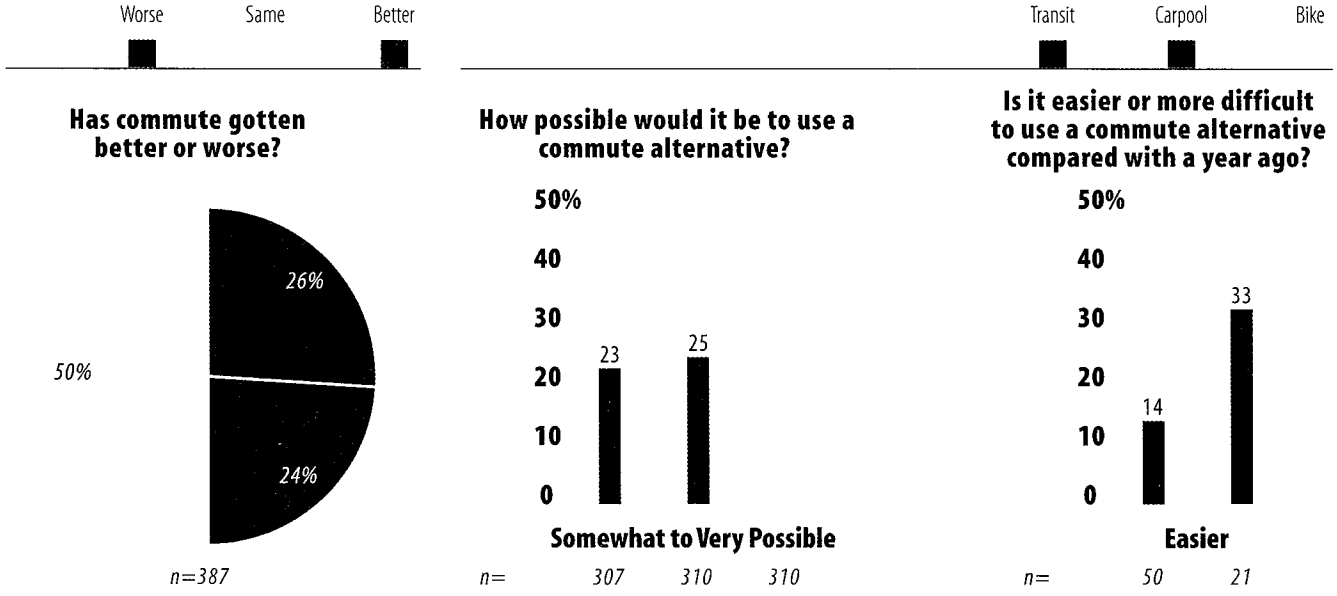
PERCEPTIONS OF COMMUTE CONDITIONS AND OPTIONS

Contra Costa respondents perceptions of their commute conditions and options changed dramatically over the past year. For the last couple of years, Contra Costa respondents were less satisfied with the commute conditions than the average Bay Area resident. This year's score of (+2) makes them some of the most satisfied (Figure 28). They share the most positive summary score with three other counties.

When asked to compare their current commute conditions with their commute conditions of a year ago, they were somewhat less positive than commuters from the region as a whole, but more positive than Contra Costa respondents from a year ago. When asked why conditions had improved respondents indicated "lighter traffic" and "roadway improvements" had made their commute easier. Respondents who were currently driving alone were asked how possible they thought it would be to use an alternative. Compared with last year, respondents indicated using commute alternatives would be more possible. Of those who were currently using a commute alternative, they were more likely to indicate using transit or carpooling was easier this year than a year ago. Transit riders indicated "service improvements" had helped their commute and carpoolers indicated it was "easier to find partners."

FIGURE 28

PERCEPTIONS OF COMMUTE CONDITIONS AND OPTIONS



Compared to region: - Compared with 2002: +

Compared to region: = Compared with 2002: +

Compared to region: = Compared with 2002: +

Summary Scores 2001: -3 2002: -2 2003: +2

MARIN COUNTY

TABLE 28
PRIMARY COMMUTE MODE

Drive Alone	66%
Carpool	13%
Bus	8%
Walk	4%
Telecommute	3%
Ferry	3%
Bicycle	1%
Motorcycle	1%
Vanpool	1%
Other	1%

n=400

PRIMARY COMMUTE MODES

Sixty-six percent of residents in Marin drive alone to work, three percentage points higher than the regional average (Table 28). The rate of carpool use is lower than the regional average. Transit use is at about the same level as the region as a whole. It is, however, the highest of the counties which do not have extensive BART service. Only Alameda, Contra Costa and San Francisco have a higher level of transit use. Buses and ferries are the most popular transit modes. Bus use is second only to San Francisco and ferry ridership, which accounts for three percent of Marin's commute trips, is the highest in the region. Marin is also tied with San Mateo County for the highest level of telecommuting as a primary commute mode—also at three percent.

In eight of nine counties, the drive-alone rate has declined. In Marin, it is down to the lowest level in four years (Table 29). Between 1996 and 2001, the drive-alone rate had been increasing steadily; it started to level off between 2001 and 2002 and this year it has declined by three percentage points. Carpool use has declined slightly in Marin, but is at the same level as the historical (1994-2003) average. Transit use has changed little in the past three years. The use of "other" modes is up substantially. Marin has a good number of telecommuters, and accounting for half (about four percent) of all "other" mode users are commuters who walk to work. Compared with the region, driving alone is more common, carpooling less prevalent, and transit and "other" mode use about the same.

TABLE 29
CLUSTERED MODES OVER TIME

	1994	1996	1999	2000	2001	2002	2003
Drive Alone	67%	61%	64%	68%	71%	70%	67%
Carpool	14%	15%	15%	12%	15%	16%	14%
Transit	10%	17%	16%	16%	10%	10%	11%
Other	11%	7%	6%	6%	5%	4%	8%

n=approximately 400 each year

OCCASIONAL AND CONNECTING MODES

In addition to data on Marin commuters' primary modes of travel, data on "occasional" modes (a completely separate mode used on days when commuters do not use their primary mode) and "connecting" modes (modes used in addition to the primary mode on a normal trip to work) were gathered. The use of occasional modes is more common in Marin than the rest of the Bay Area. Region-wide, seven percent of commuters use an occasional mode; in Marin 12 percent do so. Connecting modes are used by 12 percent of all Bay Area commuters and 12 percent of Marin County commuters.

Driving alone, telecommuting and the bus are the most commonly used occasional modes. The use of buses for an occasional mode is uncommon in other counties. In only one other county, Contra Costa, were buses identified as one of the most commonly used (top three) occasional modes. The types of connecting modes used in Marin also reflect the nature of its excellent bus and ferry system. While driving alone is the most commonly used connecting mode (as it is in seven of nine counties), bus and ferry are the second and third most commonly used. Marin is the only county where the ferry is mentioned as a connecting mode.

COMMUTE DISTANCE AND TIME

The average one-way commute distance was unchanged between 2002 and 2003 (Figure 29). The average travel time, however, decreased by two minutes between 2002 and 2003. Travel time has been decreasing since 2000 when it reached a high of 40 minutes. Travel speed has been increasing over that same period. Marin County commuters are tied with Solano commuters for the second longest travel time (33 minutes). Only Contra Costa commuters have longer travel times.

FIGURE 29
COMMUTE DISTANCE AND TIME

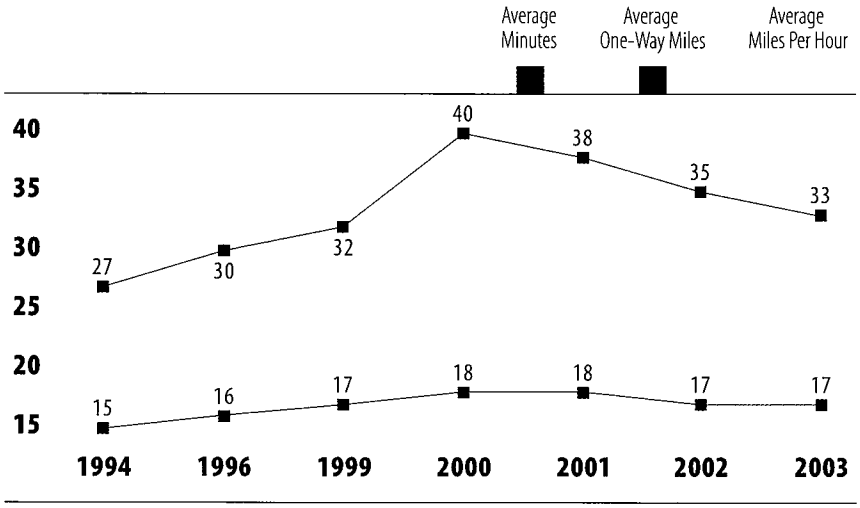


TABLE 30
MOST COMMON DESTINATIONS WITHIN MARIN COUNTY

Zip Code (within the city of)
94901 (San Rafael)
94903 (San Rafael)
94945 (Novato)
94941 (Mill Valley)
94939 (Larkspur)
94949 (Novato)

DESTINATION CHARACTERISTICS[11]

Only 54 percent of Marin County respondents live and work within the county. Marin has the third lowest percentage of residents who live and work in the same county—only Solano and Contra Costa have fewer. About four percent of *Commute Profile* respondents (based on the weighted regional data set) had a destination within Marin County. Zip codes in San Rafael were the most common destinations within the county (Table 30).

Free parking is common at worksites in Marin County. Ninety-three percent of commuters with a destination in Marin have free parking at or near their worksite. Commuters headed to Marin County were more likely than commuters going to any of the other Bay Area counties to work for a smaller employer. Seventy-four percent of commuters work for employers with less than 100 employees. Marin employers were among the least likely to provide programs designed to encourage the use of commute alternatives. Only employers in Napa and Solano were less likely to have employee commute transportation programs. Since larger employers are more likely to offer these programs, it follows that Marin employers, with a relatively high percentage of smaller companies, would be less likely.

[11] The sample size for respondents with a destination of Marin was 297.

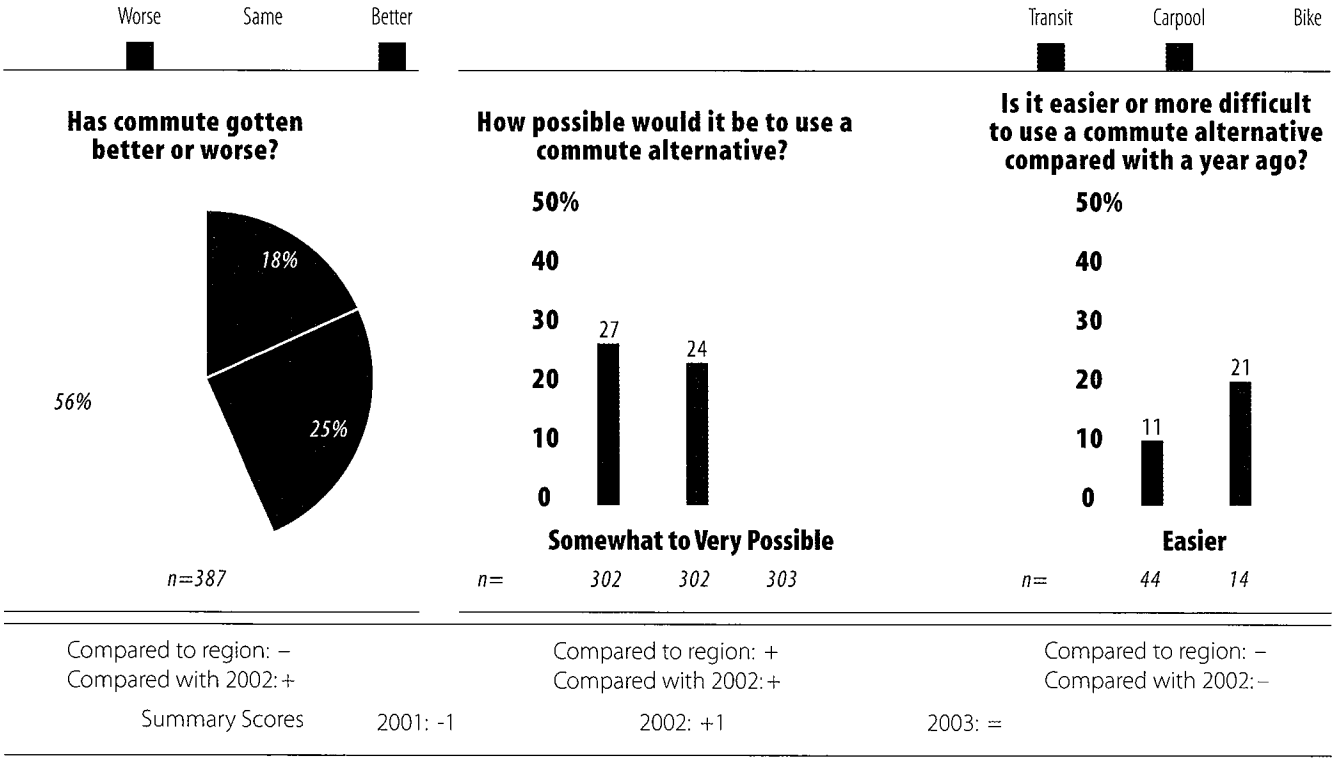
PERCEPTIONS OF COMMUTE CONDITIONS AND OPTIONS

Perceptions of commute conditions in Marin County have changed little in the past year. Comparisons of conditions a year ago and with the region as a whole yielded three (+s) and three (-s) for an overall score of (=) (Figure 30). Over the last three years Marin has received summary scores of one (-), one (+) and one (=)—seeming to indicate conditions are not changing radically.

Compared with the region, commute conditions have not improved, but compared with a year ago conditions are better. Reasons given for improved conditions included "lighter traffic" and "roadway improvements." Marin respondents, who were currently driving alone, indicated that it seemed more possible for them to use an alternative now than a year ago. On the other hand, Marin respondents who were currently using transit or carpooling were less likely to indicate it had become easier over the last year to do so. The main reasons cited were "reductions in service" and "difficulty finding carpooling partners."

FIGURE 30

PERCEPTIONS OF COMMUTE CONDITIONS AND OPTIONS



Compared to region: – Compared with 2002: +		Compared to region: + Compared with 2002: +	Compared to region: – Compared with 2002: –
Summary Scores	2001: -1	2002: +1	2003: =

NAPA COUNTY

TABLE 31
PRIMARY COMMUTE MODE

Drive Alone	75%
Carpool	17%
Walk	4%
Telecommute	2%
Bicycle	1%
Bus	1%
Motorcycle	<1%
Vanpool	<1%

n=400

PRIMARY COMMUTE MODES

Napa has the highest drive-alone rate of the Bay Area counties (Table 31). Carpooling and the use of "other" modes is similar to that of the region as a whole. Napa has the second highest percentage of commuters who walk to work. Transit use is considerably lower among Napa residents. Transit access is similar to other counties; approximately 70 percent of Napa's 125,000 residents are within a third of a mile of a bus line. Frequency of service may be more of an inhibiting factor. As a result, carpooling is the most convenient alternative mode of transportation available to Napa residents.

The percentage of drive-alone commuters, carpoolers, transit riders and "other" mode commuters in Napa County has fluctuated by one percent or less in the past three years (Table 32). In 2000, the percentage of drive-alone commuters reached a high point, but since then has returned to levels similar to previous years. Commuters who primarily drive alone to work indicated a "lack of direct transit service between home and work," "difficulty finding carpool partners" and "irregular work hours" made driving to work the best option for them. Compared with the region, driving alone is more common, carpool use identical, transit use much less common and "other" mode use about the same.

OCCASIONAL AND CONNECTING MODES

An "occasional" mode is used on days when commuters do not use their primary mode and a "connecting" mode is used in

TABLE 32
CLUSTERED MODES OVER TIME

	1994*	1996*	1999	2000	2001	2002	2003
Drive Alone	70%	73%	74%	79%	74%	75%	76%
Carpool	19%	18%	20%	16%	20%	19%	18%
Transit	5%	4%	1%	1%	2%	2%	1%
Other	7%	5%	5%	5%	4%	5%	6%

n=approximately 400 each year

*Napa and Sonoma counties

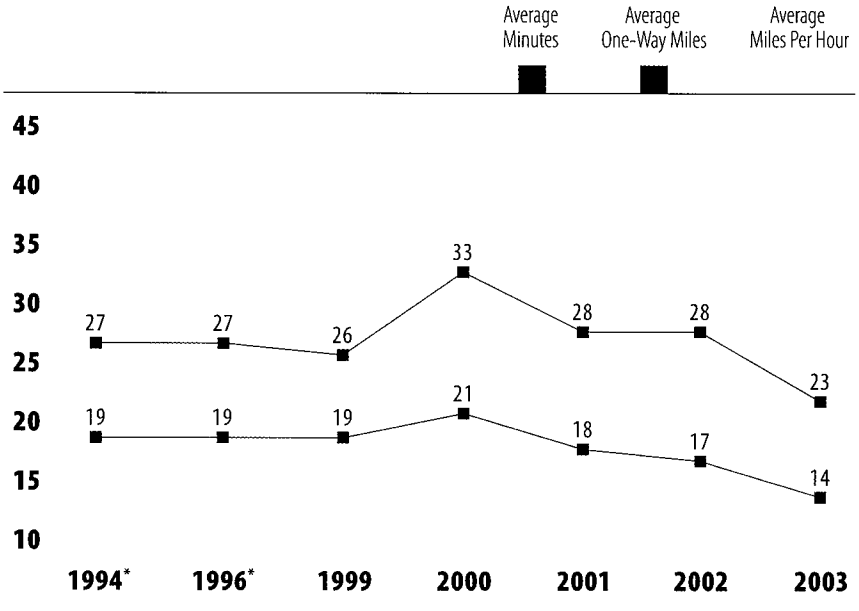
addition to the primary mode on a normal trip to work. About eight percent of Napa commuters use an occasional commute mode (similar to the seven percent average for the region). However, only five percent use a connecting—the lowest percent of any county. The use of connecting modes is much more common among transit riders. Fifty-five percent of transit riders use a connecting mode, whereas only three percent of commuters who drive alone use a connecting mode. Since Napa County has relatively low transit usage, it follows that the use of a connecting mode would also be low.

The most common occasional modes used are driving alone, telecommuting and carpooling. Napa and Sonoma are the only two counties where carpooling is one of the most common occasional modes. For those residents of Napa who do use connecting modes, driving alone, bicycling and riding the bus are the most commonly used modes.

COMMUTE DISTANCE AND TIME

The average Napa commuter travels 14 miles in 23 minutes one-way to work (Figure 31). Both distance and travel time are down from previous years. Because both measures declined proportionally, estimated average travel speed has not changed. In six of nine counties, estimated average travel speed increased from last year. In Napa and Marin travel speed remained constant between 2002 and 2003. San Francisco is the only county where travel speed for residents declined. Napa commuters enjoy the shortest travel time to

FIGURE 31
COMMUTE DISTANCE AND TIME



*Napa and Sonoma counties

TABLE 33
MOST COMMON DESTINATIONS WITHIN NAPA COUNTY

Zip Code (within the city of)
94558 (Napa)
94559 (Napa)
94574 (St. Helena)

work, and their average speed of 37 miles per hour is equaled only by residents of Sonoma County.

DESTINATION CHARACTERISTICS[12]

About 71 percent of Napa respondents live and work within the county. Only two percent of *Commute Profile* respondents (based on the weighted regional data set) had a destination within Napa County. This is the least common destination of the nine Bay Area counties. Other less common destination counties were Solano (three percent) and Marin (four percent). The largest destination county is Santa Clara—27 percent of respondents worked in that county. The most common destinations with the County of Napa are zip codes in the City of Napa (Table 33).

Free parking at or near the worksite is more common in Napa than any other county in the Bay Area. Ninety-five percent of commuters are able to park free at the work-end of their trip. Employers tend to be smaller; about three of four commuters who work in Napa County are employed at companies with less than 100 employees. Only Marin County has a slightly higher percentage of commuters working at companies with less than 100 employees. Napa County employers are also the least likely to operate programs which encourage employees to participate in commute alternatives. Since larger employers are more likely to offer these programs it follows that Napa employers, with a relatively high percentage of smaller companies, would be less likely.

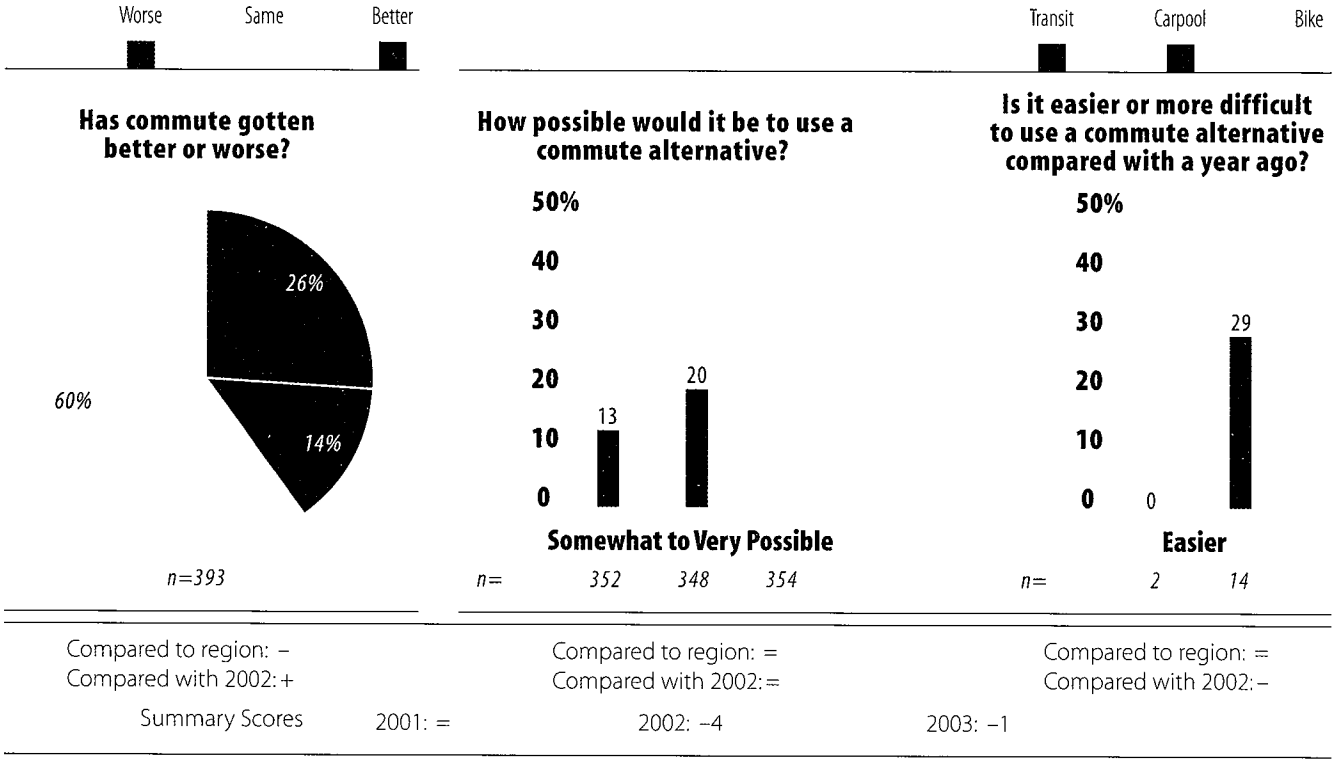
[12] The sample size for respondents with a destination of Napa was 306.

PERCEPTIONS OF COMMUTE CONDITIONS AND OPTIONS

Relative to data gathered in 2002, perceptions of commute conditions and options among Napa residents have improved in 2003 (Figure 32). In three of the six categories, there has been little change over the last year. In 2002, five of the six categories showed a negative trend. Respondents indicated commute conditions within the county improved over the last year, however, relative to commute conditions throughout the region conditions have not improved as much. The main reason for improvement was a "decrease in traffic."

FIGURE 32

PERCEPTIONS OF COMMUTE CONDITIONS AND OPTIONS



Compared to region: – Compared with 2002: +		Compared to region: = Compared with 2002: =	Compared to region: = Compared with 2002: –
Summary Scores	2001: =	2002: –4	2003: –1

SAN FRANCISCO COUNTY

TABLE 34
PRIMARY COMMUTE MODE

Drive Alone	37%
Bus	20%
Carpool	11%
Walk	10%
BART	8%
Light Rail	7%
Telecommute	2%
Bicycle	2%
Motorcycle	1%
Vanpool	1%
Caltrain	<1%
Other	2%

n=400

PRIMARY COMMUTE MODES

San Francisco residents participate in a broad range of commute modes. The drive-alone rate is by far the lowest in the region—only 37 percent of commuters drive by themselves to work (Table 34). The percentages of commuters who take the bus and walk are each more than double the total for the next closest county. Twenty percent of San Francisco residents take the bus to work; Marin has the second highest bus ridership at eight percent. Ten percent of San Francisco residents walk to work compared with four percent in counties with the second highest percentage of walkers. The combined transit use is also more than double the nearest "competitor." The combined transit use in San Francisco is 35 percent and the second highest is Alameda County at 15 percent. San Francisco can also claim the highest percentage of residents commuting by bicycle along with Alameda and Sonoma counties.

San Francisco residents continue to provide the most volatile changes in travel mode from year to year. The drive-alone rate is at its lowest level in six years (Table 35). Carpooling and transit use have both made small changes in opposite directions. Carpool use has declined slightly and transit use has increased slightly. The largest change is in the use of "other" modes. The 17 percent of respondents who indicated they walk, bicycle, telecommute, etc. is the highest percentage recorded to date. Commuters who walk account for 10 of the 17 percent of all "other" mode users—up from six percent in 2002. The main reasons commuters use transit in San Francisco is "lack of parking," "commuting costs" and "not

TABLE 35
CLUSTERED MODES OVER TIME

	1993	1994	1996	1999	2000	2001	2002	2003
Drive Alone	41%	46%	37%	40%	45%	44%	45%	38%
Carpool	11%	9%	9%	12%	8%	13%	13%	11%
Transit	35%	35%	41%	37%	36%	31%	32%	35%
Other	14%	10%	13%	10%	11%	12%	10%	17%

n=approximately 400 each year

owning a car." The main reasons cited for using "other" modes were "travel time," "comfort" and a "lack of better transit options." Compared with the region, driving alone is much less common, carpooling is below the regional average, and transit and "other" mode use are much more widespread.

OCCASIONAL AND CONNECTING MODES

In addition to the primary commute modes, data on "occasional" modes (a completely separate mode used on days when commuters do not use their primary mode) and "connecting" modes (modes used in addition to the primary mode on a normal trip to work) were gathered for San Francisco County residents. It is more common for San Francisco respondents to indicate the use of occasional and connecting modes than respondents from any other county. Eleven percent use an occasional mode and 18 percent use a connecting mode—compared with seven percent and 12 percent respectively from the region as a whole. The high use of connecting mode coincides with the high use of transit in the city. Fifty-five percent of transit riders and 24 percent of "other" mode commuters use a connecting mode, whereas only three percent of commuters who drive alone use a connecting mode.

The most commonly used occasional modes are driving alone, riding the bus and telecommuting. The use of buses as an occasional mode is more common among San Francisco residents than residents from any of the other counties. The most common connecting modes are the bus, driving alone and walking. The use of the bus as the most common connecting mode is unique to San Francisco and Alameda counties.

COMMUTE DISTANCE AND TIME

The average San Francisco resident travels 10 miles to work in 29 minutes (Figure 33). Travel time is up slightly from last year and travel distance is down slightly from last year. These changes translate to a decrease in estimated average travel speed. San Francisco is the only county where estimated travel speed declined between 2002 and 2003. This small decline in travel speed is most likely related to a higher percentage of San Francisco residents using transit for their commute. In 2002, 32 percent of respondents used transit, and in 2003, 35 percent of respondents used transit for their commute. The average travel speed for a transit commuter in San Francisco is 10 miles per hour whereas the average travel speed for a commuter who drives alone is 32 miles per hour. The average travel speed for San Francisco residents who drive alone to work has not changed over the last three years. Travel speed for San Francisco residents has increased compared with 2000 when the average speed was 28 miles per hour. In six of

the nine counties travel speed increased and in two (Napa and Marin) travel speed remained constant over the last year. San Francisco residents have the shortest commutes and the slowest travel speeds. Compared to the nine-county region, the average speed in San Francisco is 12 miles per hour less.

FIGURE 33
COMMUTE DISTANCE AND TIME

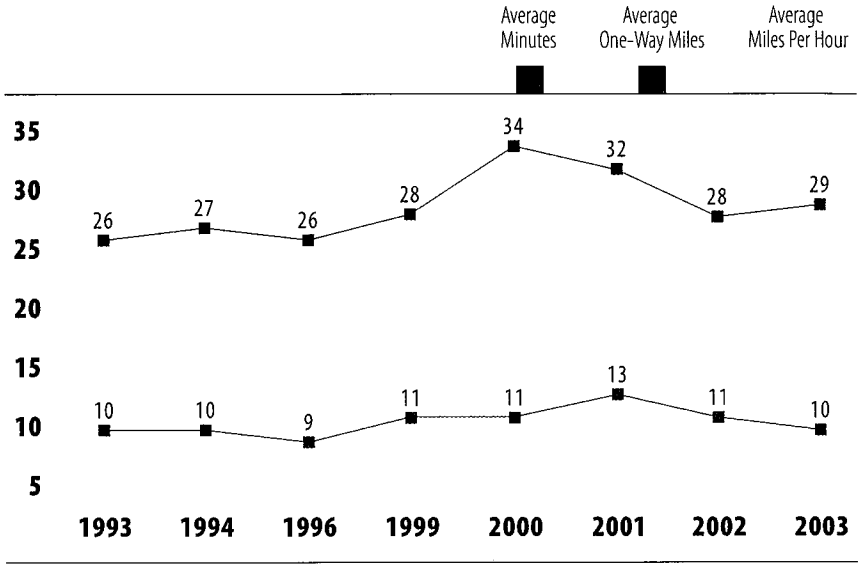


TABLE 36
MOST COMMON DESTINATIONS WITHIN SAN FRANCISCO COUNTY

Zip Code (within the city of)
94111 (Financial District)
94105 (South of Market) Bay Bridge Area
94103 (South of Market) Moscone/Civic Center
94104 (Financial District)
94102 (Civic Center)
94108 (Financial District)
94110 (Mission District)
94107 (China Basin)
94115 (UC Medical Center Area)

DESTINATION CHARACTERISTICS[13]

About three of four San Francisco residents live and work within the county. This is the third highest percentage of respondents who live and work in the same county—Santa Clara and Sonoma have higher percentages. About 19 percent of *Commute Profile* respondents (based on the weighted regional data set) had a destination within San Francisco County. Zip codes in the Financial District and the South of Market areas were the most common destinations within San Francisco (Table 36).

Commuters headed to San Francisco are, by far, the least likely to find free parking at or near their worksite. Only 33 percent of respondents indicated they had free parking available. By contrast in the county with the second smallest supply (Alameda), 75 percent indicated they had free parking available. In the other counties, free parking is available to more than 90 percent of respondents. Commuters headed to San Francisco were more likely to be going to larger (more than 100 employees) employers than commuters in other counties. Only Santa Clara has a higher percentage of commuters headed to large employers. San Francisco employers were also the most likely to operate programs designed to encourage their

[13] The sample size for respondents with a destination of San Francisco was 653.

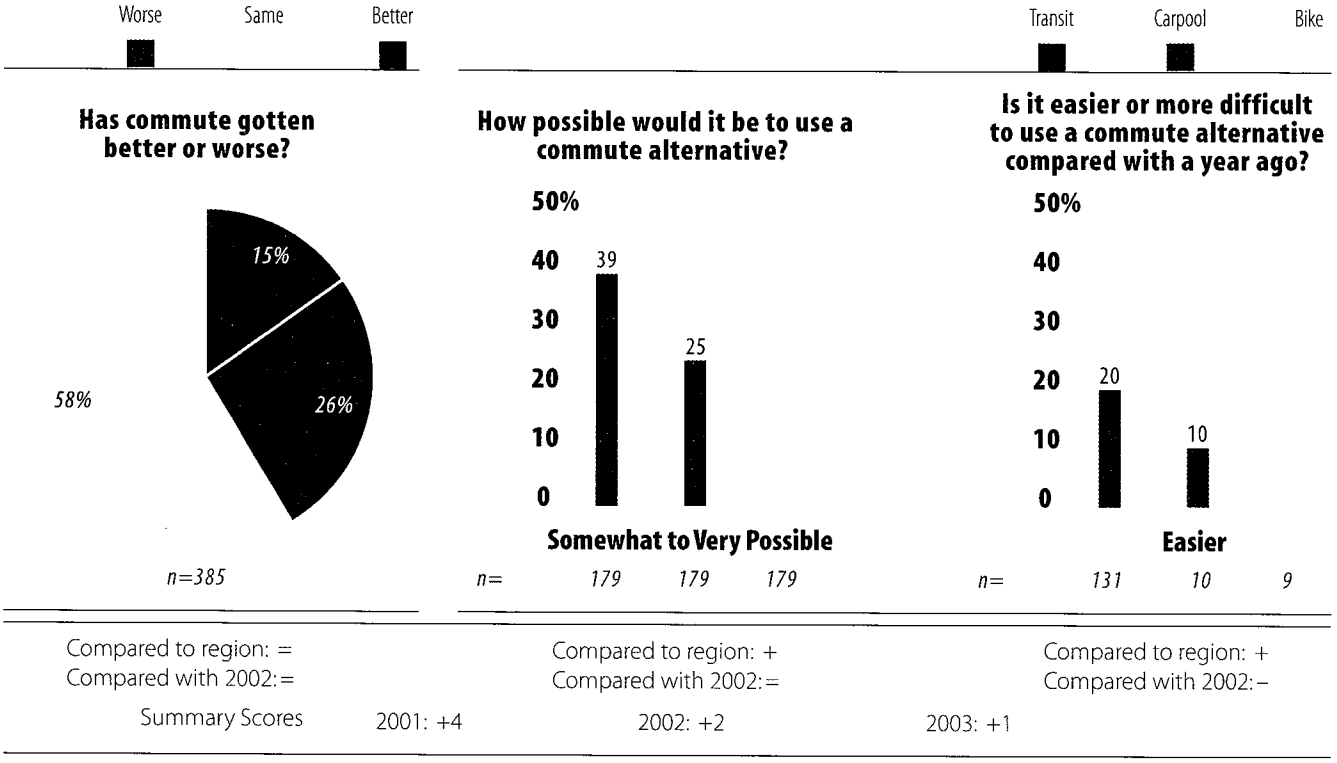
employees to use commute alternatives. Respondents indicated 49 percent of employers operated programs. San Francisco employers (along with Santa Clara employers) were also most likely to allow employees to telecommute—26 percent indicated telecommuting was an option.

PERCEPTION OF COMMUTE CONDITIONS AND OPTIONS

The overall perception of commute conditions and options in San Francisco, although down from last year, is still positive (Figure 34). There has been little change in how commuters perceive their overall commute conditions this year compared with last year. Those who did indicate conditions had improved cited "less traffic" and "improvements to transit service." San Francisco respondents were the only ones who mentioned "improved transit service" as one of the main reasons for improved conditions. Compared with the region as a whole, the use of commute alternatives seemed more feasible to commuters currently driving alone. For commuters currently using transit, carpools or bicycles to get to work results were mixed—better compared to the region but more difficult compared to a year ago. For those indicating transit use was easier, the main reason cited was "service improvements." For those indicating transit use was more difficult, the main reason cited was "service being less reliable or frequent."

FIGURE 34

PERCEPTIONS OF COMMUTE CONDITIONS AND OPTIONS



SAN MATEO COUNTY

TABLE 37
PRIMARY COMMUTE MODE

Drive Alone	68%
Carpool	17%
BART	4%
Bus	4%
Telecommute	3%
Walk	3%
Bicycle	1%
Caltrain	1%
Light Rail	<1%
Vanpool	<1%
Motorcycle	<1%

n=400

PRIMARY COMMUTE MODES

Commuters who live in San Mateo County are somewhat more likely to drive alone than commuters from the region as a whole. The percentage of commuters who drive alone to work in San Mateo County is five percentage points higher than the regional average (Table 37). Their use of carpools, BART, buses, Caltrain, telecommuting, bicycles and walking are all equal to or one percentage point below the regional average. In general, commuters who live in San Mateo County are fairly representative of the typical Bay Area commuter. Their reasons for driving alone are quite similar to reasons stated by commuters from other parts of the region. The most commonly given reasons for driving alone are a "lack of direct transit service," "difficulties finding carpool partners" or "working irregular hours."

The drive-alone rate, after remaining relatively stable over the last four years, has dropped by six percentage points in 2003 (Table 38). Carpool use had increased between 2001 and 2002—that increase remained stable in 2003. Both transit and "other" mode use increased between 2002 and 2003 to balance the decrease in driving alone. Compared with the region, driving alone is more widespread, carpool and "other" mode use are about the same; transit use is less common.

TABLE 38
CLUSTERED MODES OVER TIME

	1993	1994	1996	1999	2000	2001	2002	2003
Drive Alone	70%	72%	66%	75%	73%	75%	74%	68%
Carpool	17%	17%	18%	12%	13%	14%	17%	17%
Transit	8%	7%	9%	9%	11%	9%	7%	9%
Other	5%	4%	6%	4%	4%	2%	3%	6%

n=approximately 400 each year

OCCASIONAL AND CONNECTING MODES

"Occasional" modes and "connecting" modes were also tracked for respondents from San Mateo. An occasional mode is used on days when commuters do not use their primary mode and a connecting mode is used in addition to the primary mode on a normal trip to work. The use of occasional and connecting modes reflects the similarities between commute modes in San Mateo County and the region as a whole. About eight percent of San Mateo residents use an occasional mode (compared with seven percent for the region) and about 10 percent use a connecting mode (compared with 12 percent for the region). The use of transit is three percentage points below the regional average (nine percent compared with 12 percent)—transit users are considerably more likely to use a connecting mode than drive-alone commuters.

For eight of the nine counties, driving alone is the most common occasional mode (i.e., commuters who primarily take transit or carpool occasionally drive alone). In San Mateo County, the most commonly used occasional mode is telecommuting. Driving alone and BART are the next two most commonly used occasional modes. The most commonly used connecting modes are driving alone, BART and SamTrans.

COMMUTE DISTANCE AND TIME

Between 2001 and 2002 as the economy cooled, there was a dramatic five minute decrease in commute times and a four mile per hour increase in travel speed (Figure 35). In 2003, the average travel time did not change, nor did the average travel distance. The small increase in travel speed (despite the time and distance being identical in (Figure 35) is a result of the miles per hour calculation being done with two decimal places and the table showing rounded numbers. San Mateo residents have some of the shortest commutes in the region. Only Napa residents have a shorter average commute distance. The same holds true for travel time—only Napa residents have a shorter travel time.

FIGURE 35
COMMUTE DISTANCE AND TIME

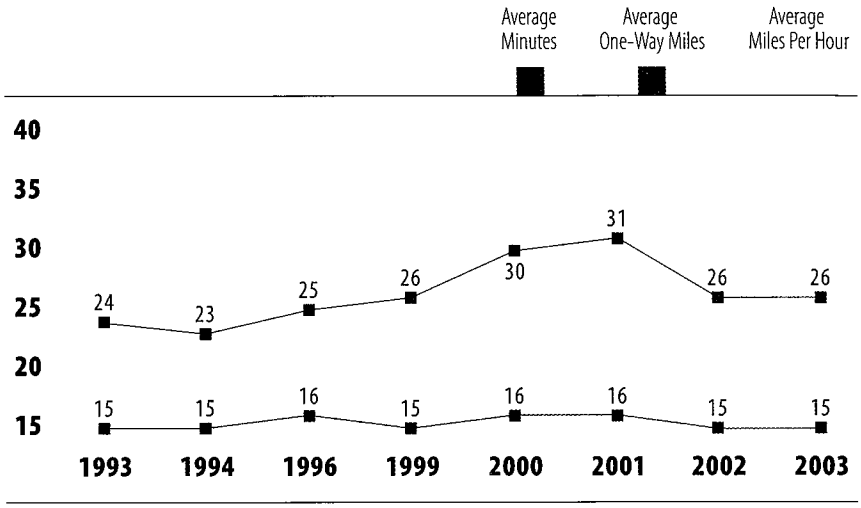


TABLE 39
MOST COMMON DESTINATIONS WITHIN SAN MATEO COUNTY

Zip Code (within the city of)
94080 (South San Francisco)
94025 (Menlo Park)
94010 (Burlingame)
94066 (San Bruno)
94070 (San Carlos)
94015 (Daly City)
94404 (San Mateo)
94401 (San Mateo)
94065 (Redwood City)

DESTINATION CHARACTERISTICS[14]

Over half (58 percent) of San Mateo County residents live and work within the county. Like many of the other characteristics of San Mateo residents, they represent close to the middle ground (three counties having more and five having fewer residents living and working in the same county). About 11 percent of *Commute Profile* respondents (based on the weighted regional data set) had a destination within San Mateo County—the fourth most popular destination county within the region. The most common destination zip code was in South San Francisco followed by Menlo Park and Burlingame (Table 39).

Nine of 10 commuters headed for San Mateo County have free parking available at or near their worksite—similar to most counties. San Francisco and Alameda are the only counties where free parking is less available. San Mateo is also at the midpoint for the region with respect to employer size and the percentage of employers operating programs to encourage the use of commute alternatives. Approximately 59 percent of commuters headed to San Mateo County work for employers with fewer than 100 employees (compared with 63 percent for the region). Employers in San Mateo rank fifth of nine in terms of their likelihood to operate programs which encourage the use of commute alternatives to driving alone.

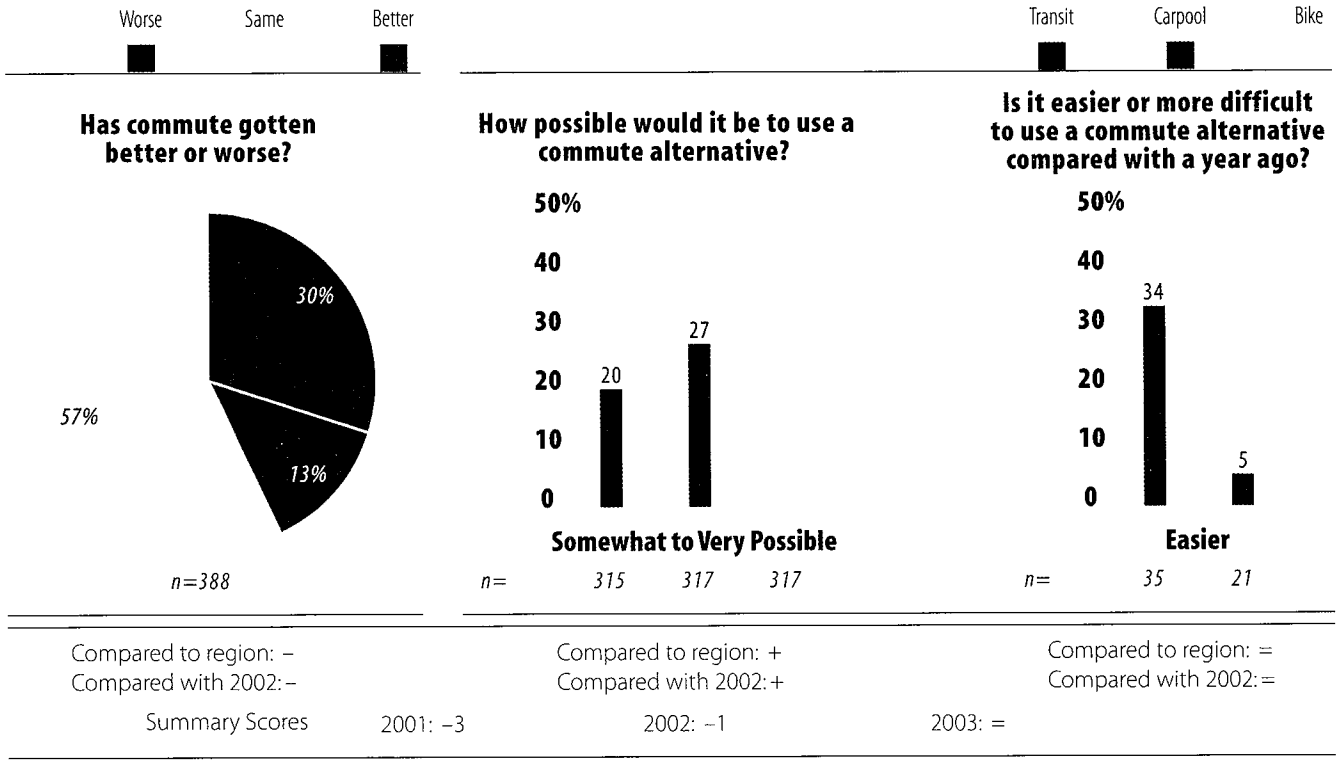
[14] The sample size for respondents with a destination of San Mateo was 345.

PERCEPTIONS OF COMMUTE CONDITIONS AND OPTIONS

Commute conditions and options have not changed dramatically in San Mateo County based on residents' perceptions. It is one of two counties whose summary score was an (=)—Marin was the other. Compared with both the region and conditions a year ago, San Mateo residents felt commute conditions were worse. The reasons cited were "increased traffic," "road construction" and "road maintenance work." Residents who were currently driving alone were positive about the possibilities of using transit, carpooling or bicycling to work. Those respondents who were currently using transit or carpooling indicated their conditions had changed little over the last year.

FIGURE 36

PERCEPTIONS OF COMMUTE CONDITIONS AND OPTIONS



Compared to region: –
Compared with 2002: –

Compared to region: +
Compared with 2002: +

Compared to region: =
Compared with 2002: =

Summary Scores 2001: –3 2002: –1 2003: =

SANTA CLARA COUNTY

TABLE 40
PRIMARY COMMUTE MODE

Drive Alone	71%
Carpool	20%
Caltrain	2%
Walk	2%
Bicycle	1%
Motorcycle	1%
Telecommute	1%
Light Rail	1%
Bus	1%
Other	<1%

n=400

PRIMARY COMMUTE MODES

For the past few years, Santa Clara County residents have had the highest drive-alone rate. This year, because of an increase in the use of carpools, Caltrain and walking modes, Santa Clara's drive-alone rate ranks third (Table 40). Napa and Sonoma counties have higher rates. The percentage of commuters carpooling is second only to Solano. The highest percentage of commuters using Caltrain is also from this county.

The distribution of commute modes had been relatively stable between 1998 and 2002 (Table 41). Following the regional trend, that has changed in 2003. The drive-alone rate dropped seven percentage points from 79 percent to 72 percent. The carpooling rate increased by four percentage points and both transit and "other" mode use posted increases. Compared with the region, driving alone is considerably more widespread and carpool use is higher than the rest of the region; transit use and "other" mode use are less common.

OCCASIONAL AND CONNECTING MODES

In addition to the primary commute modes, data on "occasional" modes (a completely separate mode used on days when commuters do not use their primary mode) and "connecting" modes (modes used in addition to the primary mode on a normal trip to work) were gathered for Santa Clara County residents. The use of both occasional and connecting modes in Santa Clara is lower than the regional averages.

TABLE 41
CLUSTERED MODES OVER TIME

	1993	1994	1995	1996	1998	1999	2000	2001	2002	2003
Drive Alone	78%	71%	71%	74%	77%	77%	77%	78%	79%	72%
Carpool	15%	17%	21%	18%	18%	15%	15%	17%	16%	20%
Transit	4%	7%	4%	3%	3%	5%	4%	3%	3%	4%
Other	3%	5%	4%	5%	1%	2%	4%	3%	2%	4%

n=approximately 400 each year

About four percent of Santa Clara residents use an occasional mode (compared with seven percent for the region) and seven percent use a connecting mode (compared with 12 percent for the region). Santa Clara has a relatively low transit use rate and transit users are considerably more likely to use a connecting mode than drive-alone commuters.

Driving alone, telecommuting and bicycling are the most commonly used occasional modes. Bicycling as an occasional mode is more common in Santa Clara than any other county. Driving alone, carpooling and bicycling are the most commonly used connecting modes. Santa Clara is the only county where carpooling shows up as one of the most common connecting modes.

COMMUTE DISTANCE AND TIME

Average travel time to work for Santa Clara residents did not change between 2002 and 2003 (Figure 37). Average one-way travel distance increased by one mile. The estimated travel speed increased again; it is up by nine miles per hour since 2001—reflecting decreasing levels of congestion. Santa Clara (in a tie with San Mateo) has the second fastest commute time. Only Napa residents enjoy a faster commute. Santa Clara residents (also in a tie with San Mateo) have the third shortest one-way commute distance.

FIGURE 37
COMMUTE DISTANCE AND TIME

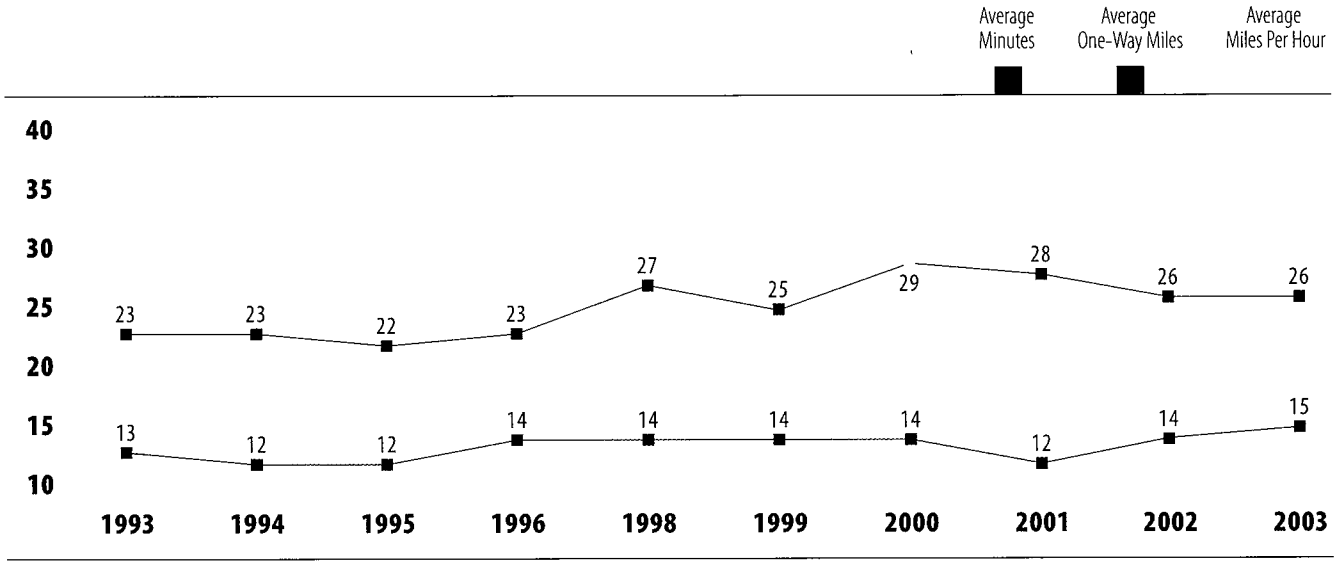


TABLE 42
MOST COMMON DESTINATIONS WITHIN SANTA CLARA COUNTY

Zip Code(within the city of)
95112 (San Jose)
94303 (Palo Alto)
95054 (Santa Clara)
94089 (Sunnyvale)
95035 (Milpitas)
94035 (Mountain View)
95134 (San Jose)

DESTINATION CHARACTERISTICS[15]

Santa Clara respondents are more likely to live and work within the same county than residents of any other Bay Area county. Eighty-eight percent of commuters who live within the county also work within the county. This is substantially more than any other county; the next closest is Sonoma County where 77 percent of commuters live and work within the county. Santa Clara is also the destination of more commuters than any other single county. About 27 percent of *Commute Profile* respondents (based on the weighted regional data set) had a destination within Santa Clara County (Table 42). Within Santa Clara County, zip codes in the cities of San Jose, Palo Alto and Santa Clara are most common destinations.

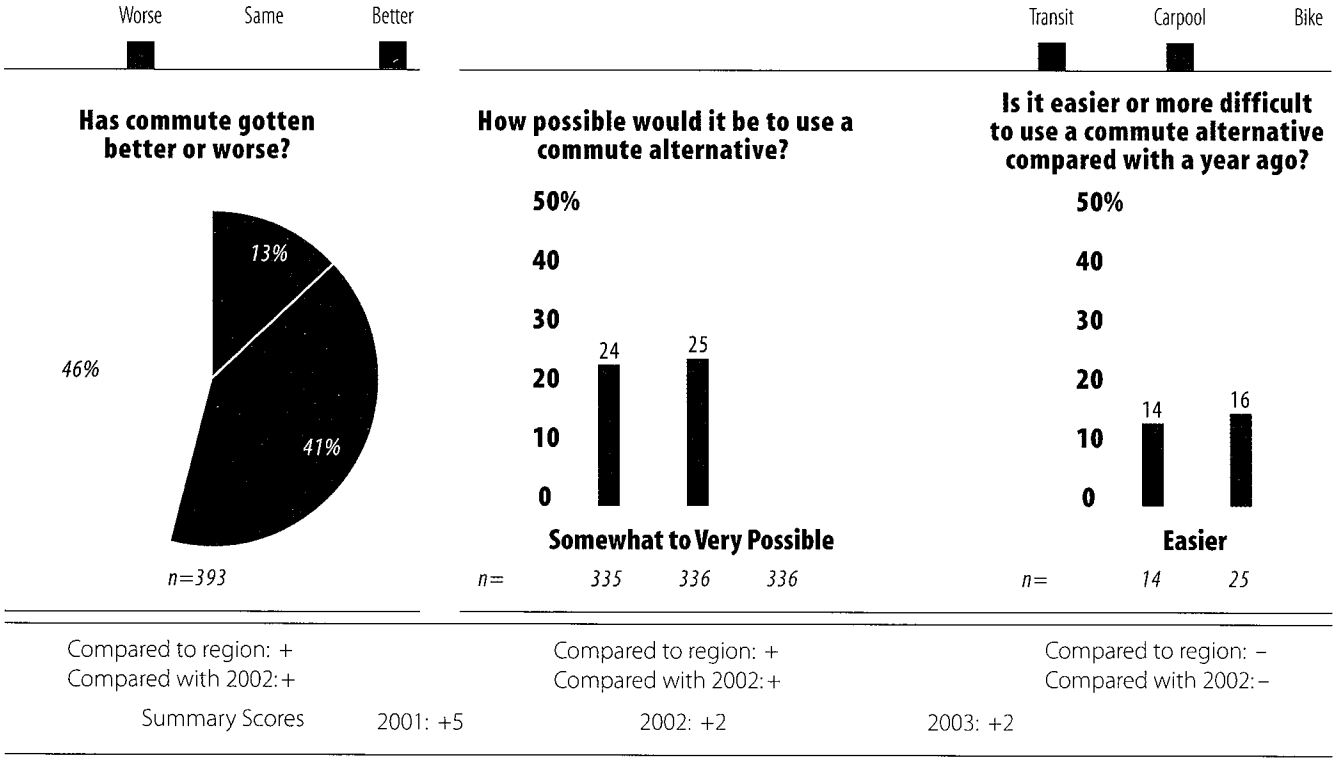
[15] The sample size for respondents with a destination of Santa Clara was 459.

PERCEPTIONS OF COMMUTE CONDITIONS AND OPTIONS

Santa Clara County residents feel better about the commute options available to them than residents of most other counties in the region (Figure 38). Alameda, Contra Costa and Sonoma also scored a (+2). Compared with both the region and conditions a year ago, Santa Clara residents indicated commute conditions were better. The main reasons cited for improved conditions were "less traffic" and "roadway improvements." Residents who were currently driving alone were positive about the possibilities of using transit, carpooling or bicycling to work. A greater percentage of respondents who were currently using transit or carpooling, indicated it was more difficult to do so now compared with a year ago.

FIGURE 38

PERCEPTIONS OF COMMUTE CONDITIONS AND OPTIONS



Compared to region: + Compared with 2002:+		Compared to region: + Compared with 2002:+	Compared to region: – Compared with 2002:–
Summary Scores	2001: +5	2002: +2	2003: +2

SOLANO COUNTY

TABLE 43
PRIMARY COMMUTE MODE

Drive Alone	70%
Carpool	20%
Walk	2%
BART	2%
Vanpool	1%
Telecommute	1%
Bus	1%
Bicycle	1%
Motorcycle	1%
Ferry	<1%
Other	1%

n=400

PRIMARY COMMUTE MODES

The combined use of carpools and vanpools is higher in Solano County than any other county in the region (Table 43). The average Solano County resident commutes 23 miles one-way to work; the average for the region is 16. These longer commutes appear conducive to carpooling and vanpooling. The drive-alone rate is about seven percentage points above the regional average. Transit use is well below the regional average. The most commonly cited reasons for driving alone were "the need to work irregular hours," "no direct transit service along the route to work" and "difficulty finding carpool partners."

The drive-alone rate in Solano County fluctuated considerably between 1993 and 1999, was relatively stable between 2000 and 2002 and shows a small decline in 2003 (Table 44). The carpool rate is identical to last year. The 22 percent of residents carpooling to work is the highest of any county. Both transit use and "other" modes posted a small increase in 2003 compared with 2002. Compared with the region, driving alone is more common, carpool use is higher, transit use is considerably lower and "other" mode use about the same.

OCCASIONAL AND CONNECTING MODES

An "occasional" mode is used on days when commuters do not use their primary mode and a "connecting" mode is used in addition to the primary mode on a normal trip to work. The use of both occasional and connecting modes in Solano

TABLE 44
CLUSTERED MODES OVER TIME

	1993	1994	1995	1996	1998	1999	2000	2001	2002	2003
Drive Alone	68%	72%	73%	67%	77%	66%	72%	73%	73%	71%
Carpool	25%	22%	22%	23%	18%	25%	19%	24%	22%	22%
Transit	4%	3%	3%	5%	4%	4%	7%	2%	2%	3%
Other	3%	3%	3%	6%	2%	4%	3%	1%	3%	5%

n=approximately 400 each year

County was about half the level for the region. Only three percent of residents use an occasional mode (compared with seven percent for the region) and six percent use a connecting mode (compared with 12 percent for the region). The limited use of connecting modes is most likely a reflection of the longer distances residents travel and limited transit options. Transit users are considerably more likely to use a connecting mode (55 percent do so) than drive-alone commuters (three percent do so). Driving alone, telecommuting and vanpooling are the most commonly used connecting modes. Solano is the only county where vanpooling appears as one of the most common connecting modes. Similar to other counties, driving alone, BART and walking are the most commonly used connecting modes.

COMMUTE DISTANCE AND TIME

Although average travel distance declined between 2002 and 2003, commuters living in Solano County still travel the longest distance of any county in the Bay Area (Figure 39). The decrease in travel distance was offset by an even greater decrease in average travel time. This combination gives Solano residents the fastest estimated travel speed—41 miles per hour. Despite having the longest distance commutes, Solano residents do not have the longest commute times—as a result of having a relatively fast travel speed—that distinction goes to Contra Costa commuters.

FIGURE 39
COMMUTE DISTANCE AND TIME

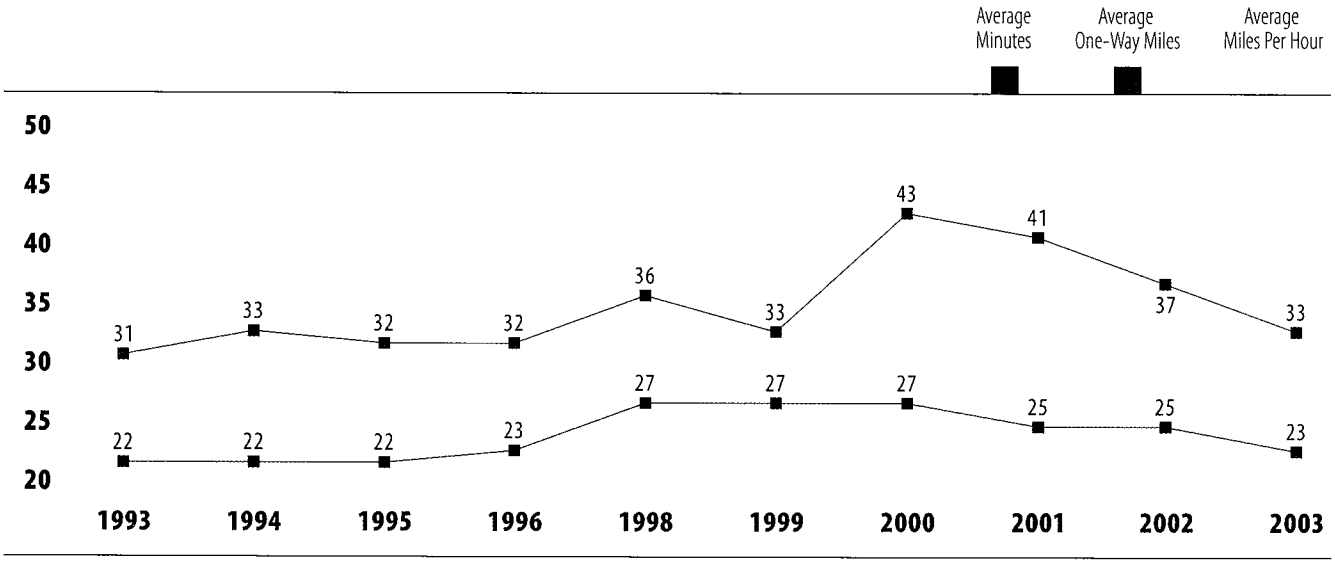


TABLE 45
MOST COMMON DESTINATIONS WITHIN SOLANO COUNTY

Zip Code (within the city of)
94533 (Fairfield)
94510 (Benicia)
95688 (Vacaville)
94591 (Vallejo)
94590 (Vallejo)

DESTINATION CHARACTERISTICS[16]

Solano County has the smallest percentage of residents who live and work within the county. Just under half of respondents (49 percent) live and work within the county. This is almost 40 percentage points less than Santa Clara (which has the highest percentage living and working within the same county) where 88 percent do so. About three percent of *Commute Profile* respondents (based on the weighted regional data set) had a destination within Solano County. Only Napa County had a smaller percentage of respondents headed to work there. Zip codes in Fairfield and Benicia were the most common destinations (Table 45).

For those commuters who are going to work within the county there is a good chance they will have free parking available at or near their worksite. Ninety-four percent of respondents destined for an employer within Solano County indicated they had free parking—only commuters headed to Napa were more likely to find free parking. Solano is approximately at the midpoint for the region with respect to employer size. Approximately 61 percent of commuters headed to Solano County work at employer sites with fewer than 100 employees (compared with 63 percent for the region). With the exception of employers in Napa County, Solano employers are the least likely to operate programs which encourage employees to use commute alternatives—approximately 25 percent of employers within the county do so. Employers in Solano County are also the least likely to offer their employees the option to telecommute—only nine percent do so.

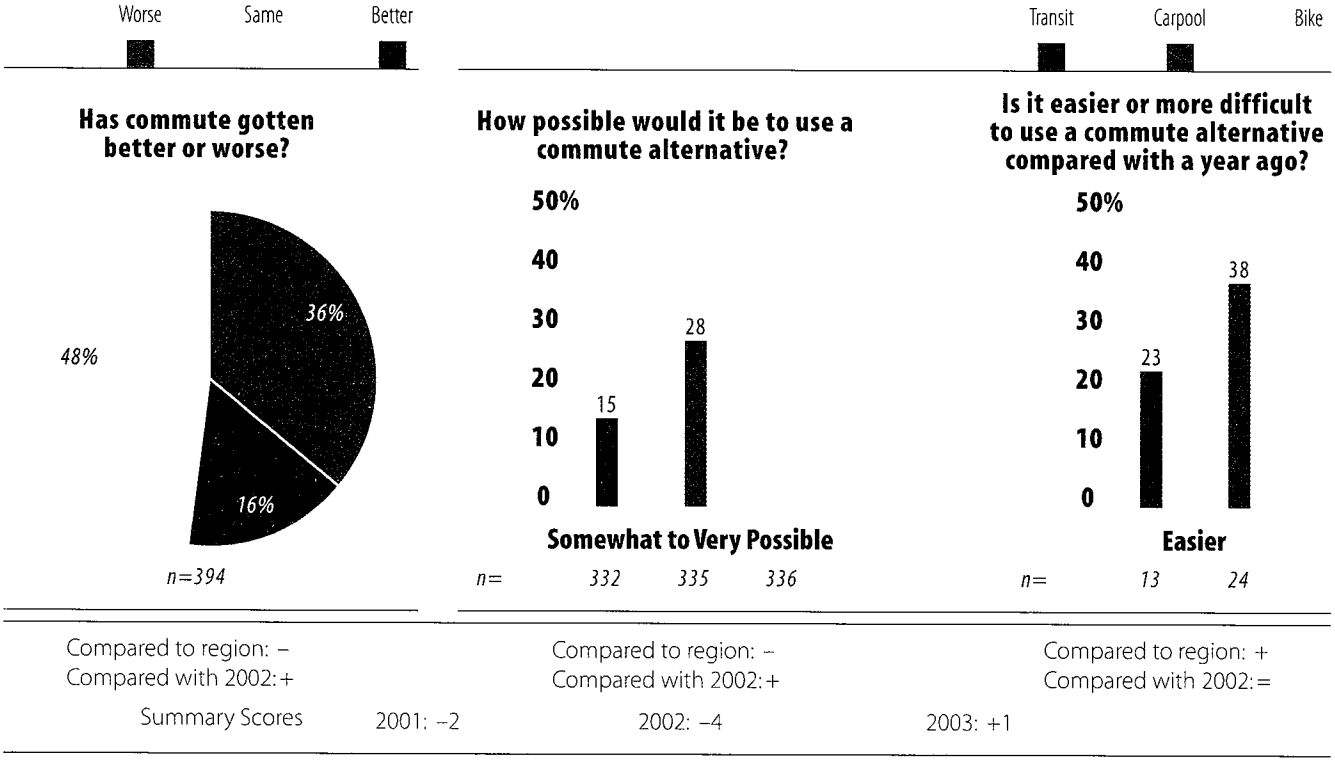
[16] The sample size for respondents with a destination of Solano was 240.

PERCEPTIONS OF COMMUTE CONDITIONS AND OPTIONS

The perceptions of commute conditions in Solano County are considerably more positive this year than last year (Figure 40). Last year's summary score of (-4) was among the lowest; this year's score of (+1) is more in the middle. Compared with other respondents from the region, Solano commuters were less positive about how conditions had changed over the last year, but more positive than Solano respondents last year. The main reasons cited for improved conditions were "less traffic" and individual "changes in commute route." For respondents who were currently driving alone, results were mixed. Compared with other respondents from the region Solano commuters were less optimistic about the potential use of an alternative to driving alone, but compared with a year ago they were more positive about potentially using transit, carpooling or bicycling to work. Respondents who were currently taking transit or carpooling indicated conditions had gotten easier (compared with the region) or stayed the same (compared with Solano respondents last year). The main reasons cited for carpooling being easier were the availability of "more partners" and being able to "use carpool lanes."

FIGURE 40

PERCEPTIONS OF COMMUTE CONDITIONS AND OPTIONS



SONOMA COUNTY

TABLE 46
PRIMARY COMMUTE MODE

Drive Alone	72%
Carpool	19%
Bus	3%
Walk	3%
Bicycle	2%
Motorcycle	1%
Telecommute	1%
Vanpool	<1%

n=400

PRIMARY COMMUTE MODES

Just less than three of four commuters in Sonoma County (72 percent) drive alone to work (Table 46). Napa is the only county in the Bay Area where residents are more likely to drive alone to work. The carpool rate in the county is slightly above average, but use of transit modes is on the low end for the region. Bicycle use is fairly high—only two other counties have two percent of commuters using bicycles as their primary mode of travel to work. The main reasons cited by Sonoma commuters for driving alone were "difficulty finding carpool partners," a "lack of direct transit service" and "irregular work hours."

The use of "other" modes in Sonoma County increased notably between 2001 and 2002. That gain seems to have been consolidated in 2003—around the level where it was in 1999 and earlier (Table 47). The drive-alone rate reached a high of 77 percent in 2000 and 2001; it has dropped by four percentage points to 73 percent in 2003. To offset the decline in driving alone the use of both carpooling and transit options have increased slightly. Compared with the region, driving alone is more common, carpool and "other" mode use is similar and transit use is lower.

OCCASIONAL AND CONNECTING MODES

In addition to the primary commute modes, data on "occasional" modes (a completely separate mode used on days when commuters do not use their primary mode) and "connecting"

TABLE 47
CLUSTERED MODES OVER TIME

	1994*	1996*	1999	2000	2001	2002	2003
Drive Alone	70%	73%	74%	77%	77%	76%	73%
Carpool	19%	18%	17%	17%	19%	18%	19%
Transit	5%	4%	4%	3%	3%	2%	3%
Other	7%	5%	5%	4%	2%	5%	5%

n=approximately 400 each year

*Napa and Sonoma counties

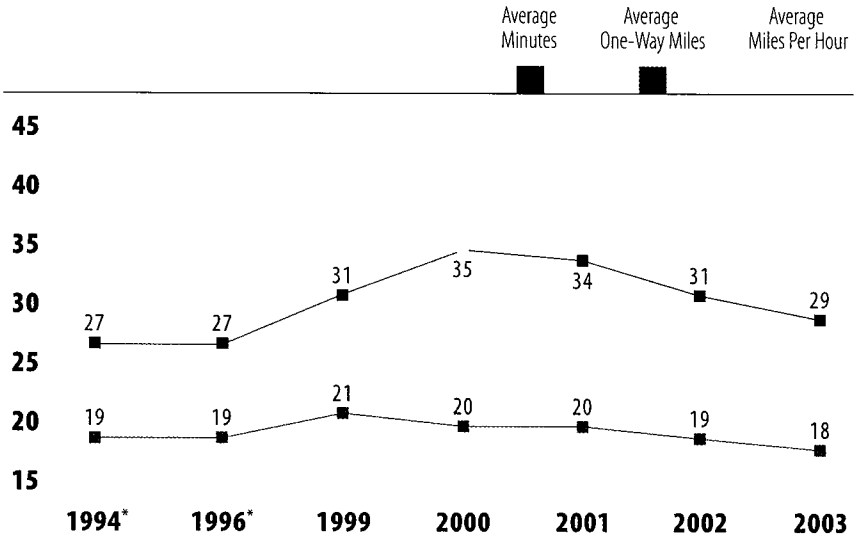
modes (modes used in addition to the primary mode on a normal trip to work) were gathered for Sonoma County residents. About eight percent of Sonoma commuters use an occasional mode for their trip to work (compared with seven percent for the region). Only six percent use a connecting mode—compared with an average of 12 percent for the region. Transit use is on the low end in Sonoma and connecting modes are commonly used as part of a transit trip so the less frequent use of connecting modes makes sense.

The most commonly used occasional modes are driving alone, telecommuting and carpooling—very similar to the types of occasional modes used in other counties. The most commonly used connecting modes are driving alone, walking and carpooling.

COMMUTE DISTANCE AND TIME

Sonoma residents travel an average of 18 miles to work, in 29 minutes and at an estimated speed of 37 miles per hour (Figure 41). Travel time is identical to the regional average even though the average one-way distance is about two miles farther. Both travel time and distance have been declining over the past three to four years and travel speed has increased gradually.

FIGURE 41
COMMUTE DISTANCE AND TIME



*Napa and Sonoma counties

TABLE 48
MOST COMMON DESTINATIONS WITHIN SONOMA COUNTY

Zip Code (within the city of)
95401 (Santa Rosa)
95403 (Santa Rosa)
95407 (Santa Rosa)
94952 (Petaluma)
95404 (Santa Rosa)
94928 (Rohnert Park)
95476 (Sonoma)

DESTINATION CHARACTERISTICS[17]

Just over three quarters of Sonoma County respondents (77 percent) live and work within the county. The only county with a higher percentage of residents living and working in the same county is Santa Clara. About six percent of *Commute Profile* respondents (based on the weighted regional data set) had a destination within Sonoma County. This is on the lower end although three counties (Napa, Solano and Marin) have a smaller share of Bay Area commuters working in their county. Within Sonoma County, zip codes in Santa Rosa are clearly the most popular destinations with four of the top five most common destinations (Table 48).

Approximately nine of 10 commuters (91 percent) with a destination of Sonoma County have free parking available at or near their worksite. Worksites tend to be smaller with 69 percent having fewer than 100 employees. Only Marin and Napa have a higher percentage of small worksites. Thirty-three percent of respondents with a destination of Sonoma County indicated their employers operate a program which encourages the use of commute alternatives. Sonoma employers are less likely to offer commute encouragement programs than employers from counties which, on average, have larger work forces. Sonoma employers are the third most likely to offer employees the option to telecommute—San Francisco and Santa Clara employers are more likely to offer the option to telecommute.

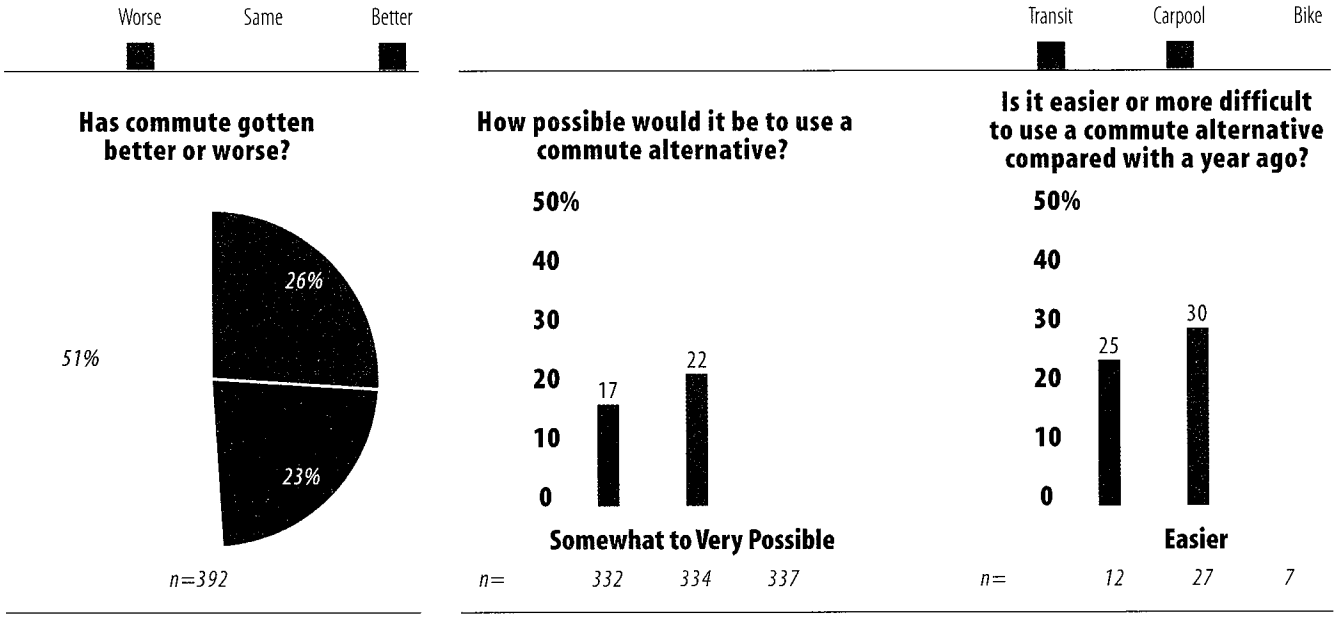
[17] The sample size for respondents with a destination of Sonoma was 342.

PERCEPTIONS OF COMMUTE CONDITIONS AND OPTIONS

Similar to last year, Sonoma County residents have an overall positive perception of their commute conditions and options (Figure 42). Compared with both respondents from the rest of the region and with Sonoma respondents from last year, a higher percentage indicated their commute had improved. Respondents cited "reduced traffic" and "roadway improvements" as key reasons for improved commute conditions. For respondents who were currently driving, results were mixed. Compared with other respondents from the region, Sonoma commuters were less optimistic about the potential use of an alternative to driving alone, but compared with a year ago they were more positive about potentially using transit, carpooling or bicycling to work. Respondents who were currently taking transit, carpooling or bicycling indicated conditions had gotten easier—both compared with the region and with Sonoma respondents from last year. The main reason cited for improved carpooling conditions was the addition of a new carpool lane.

FIGURE 42

PERCEPTIONS OF COMMUTE CONDITIONS AND OPTIONS



Compared to region: –
Compared with 2002: +

Compared to region: –
Compared with 2002: +

Compared to region: +
Compared with 2002: +

Summary Scores 2001: –4 2002: +3 2003: +2

APPENDIX A

commute profile 2003 questionnaire

Hello, my name is _____, with [contractor's name], a public opinion research firm. We're talking to people about their commute experiences to help improve commuting in the Bay Area.

1. In which county do you live?

1. Alameda	21%
2. Contra Costa	14%
3. Marin	4%
4. Napa	2%
5. San Francisco	13%
6. San Mateo	11%
7. Santa Clara	25%
8. Solano	5%
9. Sonoma	7%
10. Other (end)	

2. Are you 18 years or older and do you work 30 hours or more a week as an employee or independent business person?

1. Yes (skip to 6)
2. No (skip to 3)

3. May I speak with someone in your household who is?

1. Yes (skip to 6)
2. No/not available now
3. No one here matches criteria (end)
4. No/decline

4. What is the person's name: _____

5. When is a good time to call: _____ (end)

6. Do you currently hold more than one job?

1. Yes 10% [If Yes: Please answer the questions in this survey with respect to your primary job and primary work site.]
2. No 90%

7. How many days do you work each week?

1 2 3 4 5 6 7 average=5

8. How do you usually get to work? [select one]

1. Drive alone	63%	(skip to 10)
2. Carpool	18%	(skip to 10)
3. Vanpool	<1%	(skip to 10)
4. BART	5%	(skip to 10)
5. Bus	5%	(skip to 10)
6. Caltrain	1%	(skip to 10)
7. Altamont Commuter Express	<1%	(skip to 10)
8. Capitol Corridor Train	0%	(skip to 10)
9. Light Rail	1%	(skip to 10)
10. Ferry	<1%	(skip to 10)
11. Bicycle	1%	(skip to 10)
12. Motorcycle	1%	(skip to 10)
13. Walk	3%	(skip to 10)
14. Work at home/telecommute	2%	(ask 9)
15. Other	<1%	(skip to 10)

9. Is this a home-based business without any other regular work location outside your home?

1. Yes	0%	(end)
2. No	100%	

10. Would that be [response to Q7] days a week?

1. Yes	93%	(skip to Q12)
2. No	7%	

11. How else do you get to work? [select up to 3 most frequently used]

1. Drive alone	31%
2. Carpool	9%
3. Vanpool	<1%
4. BART	8%
5. Bus	8%
6. Caltrain	2%
7. Altamont Commuter Express	0%
8. Capitol Corridor Train	0%
9. Light Rail	3%
10. Ferry	<1%
11. Bicycle	7%
12. Motorcycle	1%
13. Walk	5%
14. Work at home/telecommute	20%
15. Other	8%

12. You indicated that you normally commute to work by [response to Q8]. Is the entire trip made by [response to Q8] or is some other type of transportation combined with this on the same day to get from home to work?

1. Yes	12%
2. No (if Q8=1 skip to 17; if Q8=2 or 3 skip to 14; if Q8=4+ skip to 20)	88%
3. Refused/don't know (if Q8=1 skip to 17; if Q8=2 or 3 skip to 14; if Q8=4+ skip to 20)	0%

13. What other modes do you use? [select up to 3]

1. Drive alone	31%
2. Carpool	7%
3. Vanpool	2%
4. BART	10%
5. Bus	23%
6. Commute Train	2%
7. Light Rail	5%
8. Ferry	<1%
9. Bicycle	6%
10. Motorcycle	<1%
11. Walk	9%
12. Work at home/telecommute	0%
13. Other	4%

Questions 14-16 for primary mode = carpool or vanpool (Q8 = 2 or 3)

14. Including yourself and the driver, what is the total number of persons usually in the vehicle?

_____ average=3

15. With whom do you regularly carpool/vanpool? [readchoices; select all that apply]

1. Household members	33%
2. Non-household relatives	7%
3. Co-workers	42%
4. Friends, acquaintances, neighbors	6%
5. Someone from a matchlist/RIDES/ 755-POOL/511	1%
6. Casual carpool with different people each day	8%
7. Other	2%
8. Refused/don't know	1%

16. How long have you been in a carpool or vanpool?

1. Less than a month	5%
2. 1 month to less than 6 months	11%
3. 6 months to less than a year	8%
4. More than a year but less than two	17%
5. More than two years	60%

Questions 17-19 for primary mode = drive alone (Q8=1)

17. When you say you drive alone to work, do you mean [read choices; select up to 3]

1. You sometimes have children?	15%
2. You sometimes have other household members?	4%
3. You sometimes have "others"?	7%
4. You never have anyone with you?	74% (skip to Q19)
5. Refused/don't know	0%

18. How often do you have other people in the vehiclewith you? [select one]

1. Three to five days per week	62%
2. One to two days per week	23%
3. Less than one day per week	15%

19. What are your reasons for driving alone to work? [select up to 3]

1. No practical transit options	14% (skip to 21)
2. Comfort/relaxation	5% (skip to 21)
3. Travel time to and from work	7% (skip to 21)
4. No one to carpool with	16% (skip to 21)
5. Privacy	1% (skip to 21)
6. Having vehicle during work	10% (skip to 21)
7. Having vehicle before/after work	4% (skip to 21)
8. Having vehicle to take kids to daycare/school	5% (skip to 21)
9. Safety	<1% (skip to 21)
10. Commuting costs	1% (skip to 21)
11. Work hours/work schedule	14% (skip to 21)
12. Not being dependent on others	2% (skip to 21)
13. Want to get home in an emergency	<1% (skip to 21)
14. Like to come and go as I please	2% (skip to 21)
15. Driving is easiest and fastest	10% (skip to 21)
16. Love to drive my car	<1% (skip to 21)
17. Enjoy private time driving to work	1% (skip to 21)
18. Transit not reliable	1% (skip to 21)
19. Transit not frequent enough	1% (skip to 21)
20. Other	7% (skip to 21)
21. Refused/don't know	<1% (skip to 21)

Q20 for other than drive alone respondents: Q8<>1

20. What are your reasons for [response to Q8]? (select up to 3)

1. No practical transit options	5%
2. Comfort/relaxation	13%
3. Travel time to work	12%
4. Can use diamond (HOV, carpool) lane	2%
5. Don't own a car	8%
6. Having vehicle during work	1%
7. Having vehicle before/after work	<1%
8. Having vehicle to take kids to daycare/school	1%
9. Safety	1%
10. Commuting costs	15%
11. Work hours/work schedule	2%
12. Too far to transit	1%
13. Need to get home in an emergency	<1%
14. No parking available or parking too expensive	6%
15. Enjoy private time driving to work	1%
16. Environment (reduce pollution/save energy)	6%
17. Stress	3%
18. Enjoy talking to someone/company	2%
19. Other	23%
20. Refused/don't know	<1%

21. Is your commute better, about the same or worse now than it was a year ago? [select one]

1. Extremely better	4%
2. Better	25%
3. About the same	50% (skip to 24)
4. Worse	16% (skip to 23)
5. Extremely worse	2% (skip to 23)
6. Refused/don't know	3% (skip to 24)

22. How has it gotten better? [select a maximum of 3]

1. Traffic lighter	49% (1+ = skip to 24)
2. Roadway improvements	10%
3. Changed mode	3%
4. Moved home/changed job or job location	14%
5. Changed commute route	6%

6. Commuting at different time	3%
7. Less road maintenance work	2%
8. Weather improved	<1%
9. Improved/new transit service	4%
10. Other	9%
11. Refused/don't know	<1%

23. How has it gotten worse? [select a maximum of 3]

1. Traffic heavier	52%
2. Construction delays	9%
3. Changed mode	1%
4. Moved home/changed job or job location	8%
5. Changed commute route	3%
6. Commuting at different time	1%
7. More road maintenance	4%
8. Weather worse	<1%
9. Transit more crowded/slower	7%
10. Other	15%
11. Refused/don't know	<1%

Transit only: Q8=4-10

24. Would you say that it is easier, about the same or more difficult to use transit to get to work now than it was a year ago? [select one]

1. Extremely easier	2%	
2. Easier	17%	
3. About the same	66%	(skip to 27)
4. More difficult	10%	(skip to 24b)
5. Extremely more difficult	1%	(skip to 24b)
6. Refused/don't know	4%	(skip to 27)

24a. Why is it easier? [select up to 3]

1. Changed my home or work location (1+ skip 27)	21%
2. Better information available	1%
3. Service reliability or frequency has improved	30%
4. New service has been added	9%
5. Employer provides incentives	1%
6. Schedule/responsibilities have changed at home or work	4%
7. Other	31%
8. Refused/don't know	3%

24b. Why is it more difficult? [select up to 3]

1. Changed my home or work location	0%
2. Service has been cut	22%
3. Service is less frequent	15%
4. Service is less reliable	23%
5. Schedule/responsibilities have changed at home or work	7%
6. Other	30%
7. Refused/don't know	3%

Carpool only: Q8=2.

25. Would you say that it is easier, about the same ormore difficult to carpool to work now than it was a year ago? [select one]

1. Extremely easier	3%	
2. Easier	20%	
3. About the same	64%	(skip to 27)
4. More difficult	7%	(skip to 25b)
5. Extremely more difficult	1%	(skip to 25b)
6. Refused/don't know	4%	(skip to 27)

25a. Why is it easier? [select up to 3]

1. Changed my home or work location (1+skip to 27)	12%
2. New carpool lane	9%
3. More people to share ride with	33%
4. Change in home/work schedule	2%
5. Other	40%
6. Refused/don't know	4%

25b. Why is it more difficult? [select up to 3]

1. Changed my home or work location (1+ skip to 27)	5%
2. Traffic is worse	50%
3. Can't use carpool lane	0%
4. Change in home/work schedule	0%
5. Partners no longer available	9%
6. Other	36%
7. Refused/don't know	0%

Bicycle commuters only: Q8=11

26. Would you say that it is easier, about the same ormore difficult to bicycle to work now than it was a year ago? [select one]

1. Extremely easier	0%	
2. Easier	27%	
3. About the same	67%	(skip to 27)
4. More difficult	2%	(skip to 26b)
5. Extremely more difficult	0%	(skip to 26b)
4. Refused/don't know	4%	(skip to 27)

26a. Why is it easier? [select up to 3]

1. Changed my home or work location (1+skip to 27)	23%
2. New bike lane	39%
3. Found someone to ride with	0%
4. Improved facilities to lock bike or change cloths, etc.	8%
5. Other	31%
6. Refused/don't know	0%

26b. Why is it more difficult? [select up to 3]

1. Changed my home or work location	0%
2. Traffic is worse	0%
3. Less safe to ride on streets	0%
4. No safe place to lock bike	0%
5. Other	100%
6. Refused/don't know	0%

27. About how many miles do you travel to work onaverage, one-way? _____ average=16 miles

28. How many minutes does your commute to work take door to door? _____ average=29minutes

29. What time do you normally start work? _____

29a. AM _____ **or PM** _____

30. How flexible would you say your arrival time at work is?

1. Extremely flexible	26%
2. Flexible	38%
3. Neutral	7%
4. Inflexible	20%
5. Extremely inflexible	8%
6. Refused/don't know	1%

31. How flexible would say your arrival time at home is?

1. Extremely flexible	33%
2. Flexible	49%
3. Neutral	8%
4. Inflexible	8%
5. Extremely inflexible	2%
6. Refused/don't know	1%

32. Is there a special diamond lane, that can be used only by carpools, vanpools and buses, along your route to work?

1. Yes	43%	
2. No	55%	(skip to 38)
3. Refused/don't know	2%	(skip to 38)

33. Do you regularly use the diamond lane to get to work?

1. Yes	22%	
2. No	78%	(skip to 38)
3. Refused/don't know	0%	(skip to 38)

34. Does the diamond lane save you time in getting to work?

1. Yes	86%	
2. No	13%	(skip to 36)
3. Refused/don't know	1%	(skip to 36)

35. How many minutes does it save you?

_____ average=16

36. Did the diamond lane influence your decision to carpool or ride transit?

1. Yes	51%
2. No	47%
3. Refused/don't know	2%

37. How likely are you to continue to carpool or ride transit if the diamond lane did not exist?

1. Extremely flexible	38%
2. Flexible	23%
3. Neutral	11%
4. Inflexible	14%
5. Extremely inflexible	11%
6. Refused/don't know	4%

38. What is the zip code where you live? _____

Ask 39 only if they do not know their home zip code in 38

39. What city do you live in? _____

40. What is the zip code where you work? _____

Ask 41 only if they do not know their work zip code in 40

41. What city do you work in? _____

42. Is there free all-day parking at or near your worksite?

1. Yes	78%
2. No	22%
3. Refused/don't know	1%

43. How many employees work for your company at your site?

1. 0 –50	46%
2. 51-100	12%
3. 101-500	21%
4. More than 500	19%
5. Refused/don't know	2%

44. Does your employer encourage employees to use transit, carpool, bicycle or walk to work?

1. Yes	38%	
2. No	58%	(skip to 45)
3. Refused/don't know	5%	(skip to 45)

44a. How does your employer encourage the use of these modes? [select a maximum of 5]

1. Carpool and/or vanpool program	19%
2. Transit ticket sales/subsidies	25%
3. Guaranteed ride home	3%
4. Bike lockers/showers	5%
5. Flexible hours	4%
6. Special carpool parking	6%
7. Incentives/rewards	12%
8. Other	24%
9. Refused/don't know	4%

45. As part of your employment, do you have theopportunity to work at home instead of going to your regular place of work?

1. Yes	23%	
2. No	77%	(skip to 48)
3. Refused/don't know	<1%	(skip to 48)

46. Approximately how many days per month do you work at home instead of at your regular place of work? ___average=4

47. Would you say you make more, fewer or about the same number of trips with your car on days that you work at home? [select one]

1. More	5%
2. Fewer	58%
3. Same	24%
4. Refused/don't know	13%

Questions 48-53 for primary mode = drive alone Q8=1

48. How possible would it be for you to carpool at least one or two days a week? Would it be . . . [read choices; select one]

1. Extremely possible	4%	(skip to 50)
2. Possible	21%	(skip to 50)
3. Neutral/not sure	11%	
4. Impossible	45%	
5. Extremely impossible	19%	
6. Refused/don't know	<1%	(skip to 50)

49. Why is it difficult to carpool to work? [select a maximum of 3]

1. Takes too much time	4%
2. Desire privacy	1%
3. Need vehicle during work	11%
4. Need vehicle before/after work	5%
5. Transport children	6%
6. Safety	<1%
7. Work irregular hours	20%
8. Work overtime	2%
9. Prefer to drive alone	2%
10. Can't find carpool or vanpool partners	41%
11. Never considered carpooling	1%
12. Other	8%
13. Refused/don't know	<1%

50. How possible would it be for you to use transit at least one or two days a week? Would it be . . . [read choices; select one]

1. Extremely possible	4%	(skip to 52)
2. Possible	19%	(skip to 52)
3. Neutral/not sure	8%	
4. Impossible	43%	
5. Extremely impossible	25%	
6. Refused/don't know	1%	(skip to 52)

51. Why is it difficult to use transit to get to work? [select a maximum of 3]

1. Takes too much time	23%
2. Desire privacy	1%
3. Need vehicle during work	13%
4. Need vehicle before/after work	4%
5. Transport children	6%
6. Safety	1%
7. Work irregular hours	7%
8. Work overtime	1%
9. Transit unreliable	8%
10. Prefer to drive alone	2%
11. Cost/too expensive	1%
12. No service available on my commute	23%
13. Never considered using transit	1%
14. Don't know how to use transit	2%
15. Other	7%
16. Refused/don't know	1%

52. How possible would it be for you to bicycle all or partof the way to work at least one or two days a week? Would it be . . .[read choices; select one]

1. Extremely possible	5%	(skip to 54)
2. Possible	17%	(skip to 54)
3. Neutral/not sure	3%	
4. Impossible	38%	
5. Extremely impossible	36%	
6. Refused/don't know	<1%	(skip to 54)

53. Why is it difficult to ride a bicycle to work? [select amaximum of 3]

1. I don't ride or own a bike	8%
2. Too far to ride	32%
3. Can't ride in work clothes	4%
4. Don't feel safe riding to work	12%
5. No safe place to park/lock my bike	<1%
6. No place to change/shower at work	1%
7. Takes too much time	7%
8. Need car at work or before/after work	11%
9. Need to get in better shape first	7%
10. Never even considered it	1%
11. Other	16%
12. Refused/don't know	0%

Questions for all respondents Q1=1-9

54. How familiar are you with the phone number (800) 755-POOL? Use a scale of 1 to 5 with 1 being not aware at all and 5 being very aware.

1. 67%
2. 10%
3. 10%
4. 5%
5. 9%
6. 1% Refused/don't know

55. How familiar are you with the phone number 817-1717? Use a scale of 1 to 5 with 1 being not aware at all and 5 being very aware.

1. 92%
2. 3%
3. 2%
4. 1%
5. 2%
6. 1% Refused/don't know

Question 56 for Solano and Napa respondents only Q1=4 or 8

56. How familiar are you with the phone number (800)53-KMUTE ? Use a scale of 1 to 5 with 1 being not aware at all and 5 being very aware.

1. 72%
2. 9%
3. 8%
4. 6%
5. 6%
6. 0% Refused/don't know

Questions 57 and 58 for Contra Costa County respondents only_ Q1=2

57. How familiar are you with the Contra Costa Commute Alternatives Network, also know as CC-can? Use a scale of 1 to 5 with 1 being not aware at all and 5 being very aware?

1. 87%
2. 5%
3. 4%
4. 1%
5. 2%
6. <1% Refused/don't know

58. How familiar are you with commute incentivesavailable for people who either work or live in Contra Costa County? Use a scale of 1 to 5 with 1 being not aware at all and 5 being very aware?

1. 79% (skip to 59)
2. 7% (skip to 59)
3. 7%
4. 2%
5. 6%
6. <1% Refused/don't know

58a. Can you name any of the available incentives? [selectall that apply]

1. No/don't know	54%
2. Vanpool	3%
3. Transit tickets	12%
4. Carpool (script)	15%
5. Guaranteed Ride Home	3%
6. Carpool to BART	10%
7. School Pool	0%
6. Refused	3%

Questions for all respondents Q1=1-9

59. Have you ever heard of a carpooling or vanpooling program that serves your area or the region?

1. Yes	44%
2. No	56% (skip to 60)
3. Not Sure	<1% (skip to 60)

59a. Can you name it?

1. RIDES for Bay Area Commuters (RIDES)	3%
2. Solano Napa Commuter Information	<1%
3. Contra Costa Commute Alternatives Network (CC-can)	<1%
4. Peninsula Traffic Congestion Relief Alliance (commute.org)	0%
5. 511	<1%
6. Name of person	21%
7. Can't remember name of person	75%

60. Have you ever used the 511 phone service or visited www.511.org?

1. Yes	2% (skip to 61)
2. No	98%
3. Not Sure	<1%

60a. When thinking about the kinds of travel information you get from radio, TV, or on the Internet, what is the main topic of information (e.g., traffic, transit, ridesharing, etc.) you MOST often seek?

1. Traffic	53% (skip to 65)
2. Transit	6% (skip to 65)
3. Rideshare(carpool/vanpool)	1% (skip to 65)
4. Biking	<1% (skip to 65)
5. Other	10% (skip to 67)
6. None/Not Sure	31% (skip to 67)

61. Would you recommend the 511 service to other peopleseeking Bay Area travel information?

1. Yes	87%
2. No	6%
3. Not sure	7%

62. What do you primarily use 511 information for?

1. Traffic	71% (skip to 64)
2. Carpooling/Vanpooling	11%
3. Bicycling	0% (skip to 64)
4. Using public transit	6% (skip to 64)
5. Airport Information	0% (skip to 64)
6. Other [capture]:_____	13% (skip to 64)

63. How satisfied were you with the carpooling or vanpooling information? Use a scale of 1 to 5 with 1 being not at all satisfied and 5 being very satisfied.

1. 33%
2. 0%
3. 0%
4. 33%
5. 33%
6. 0% Refused/don't know

64. How valuable or useful do you find this information?

1. Extremely valuable	29%
2. Valuable	47%
3. Neutral	14%
4. Not very valuable	0%
5. Not valuable at all	4%
6. Refused/don't know	6%

65. How often do you actively seek __[response to Q60a or Q62]_____information?

1. More than twice a day	18%
2. Once to twice a day	43%
3. Less than once a day	6%
4. Once a week	11%
5. Less than once a week	9%
6. Less than once a month	12%
7. Refused/don't know	1%

Ask Q66 only if Q60<>1

66. Regarding ____[response to Q60a]_____ information,what information are you specifically most interested in having available? [Choose up to three for one of the following four categories]

Traffic

1. Estimated driving time on your commute	7%
2. Traffic congestion map	61%
3. FasTrak info	<1%
4. HOV lane maps	<1%
5. Alternative route information	14%
6. Information on alternative transportation options	2%
7. Other	13%
8. Refused/don't know	2%

Transit

1. Real-time bus/train/ferry departure/arrival information	19%
2. Announcements for delays and service changes	11%
3. Trip planning services	7%
4. Schedules & route maps	41%
5. Fare info	5%
6. How to get to popular destinations	2%
7. Paratransit information	1%
8. Other	9%
9. Refused/don't know	4%

Rideshare

1. Carpooling benefits provided by your employer	4%
2. Other employer benefits, such as guaranteed ride home or reserved carpool parking	4%
3. Carpool or vanpool matching	20%
4. Casual carpooling information	28%
5. HOV lanes maps	0%
6. Park & Ride lot locations	4%

7. Other	20%
8. Refused/don't know	20%

Biking

1. Bike trip planner	27%
2. Taking bikes on transit	0%
3. Bicycle safety	9%
4. Bicycles on bridges	9%
5. Bicycling organizations	9%
6. List of Bay Area bike maps	36%
7. Bike Buddy matching	0%
8. Other	9%
9. Refused/don't know	0%

67. How familiar are you with an organization called "RIDES for Bay Area Commuters"? Use a scale of 1 to 5 with 1 being not aware at all and 5 being very aware.

1. 72%
2. 13%
3. 8%
4. 3%
5. 5%
6. <1% Refused/don't know

Question 68 asked of Solano and Napa county respondents Q1=4 or 8

68. How familiar are you with an organization called "Solano Commuter Information"? Use a scale of 1 to 5 with 1 being not aware at all and 5 being very aware.

1. 73%
2. 11%
3. 9%
4. 3%
5. 4%
6. 0% Refused/don't know

Questions 69 to end for all respondents

69. Have you ever used a Call Box on the side of the road?

1. Yes		19%
2. No	(skip to 70)	81%

69a. How would you rate your overall experience with the person who helped you over the phone?

1. Extremely good	47%
2. Good	36%
3. Neutral/not sure	8%
4. Bad	3%
5. Extremely bad	3%
6. Refused/don't know	3%

70. Have you ever used the Freeway Service Patrol (FSP)?

1. Yes		20%
2. No	(skip to 72)	77%
3. Don't know		4%

70a. If yes, how would you rate your overall experience with the person who helped you on site?

1. Extremely good	72%
2. Good	25%
3. Neutral/not sure	2%
4. Bad	1%
5. Extremely bad	0%
6. Refused/don't know	0%

71. Do you have regular access to the Internet at homeor at work?

1. Yes	90%
2. No	10%
3. Refused/don't know	<1%

72. Do you always, sometimes or never have a vehicle available for getting to work?

1. Always available	89%
2. Sometimes available	6%
3. Never available	5%
4. Refused/don't know	<1%

73. How old are you? Are you . . .

1. Less than 20	1%
2. In your 20's	14%
3. 30's	27%
4. 40's	29%
5. 50's	22%
6. 60 or older	7%
7. Refused	1%

74. And what is your combined annual (before-tax) household income? Is it . . .

1. $20,000 or less	5%
2. $21,000 to $35,000	9%
3. $36,000 to $50,000	11%
4. $51,000 to $65,000	13%
5. $66,000 to $80,000	12%
6. $81,000 to $100,000	11%
7. Or more than $100,000	25%
8. Refused/don't know	14%

75. Gender of respondent: [Do not need to ask]

1. Male	50%
2. Female	50%

Those are all the questions I have for you. Thank you very much for participating.

APPENDIX B

demographic variables and mode

AGE, INCOME AND GENDER

Commuters above the age of 50 are more likely to drive alone and are less likely to carpool compared with younger commuters (Table 49). The sample of younger commuters (under the age of 20) is small and results have varied somewhat from year to year. Two years ago they had the highest proportion of "other" mode users, last year they were among the smallest in this category and this year they are again notably larger. The "younger than 20" group's use of carpools is also quite high this year—whereas last year it was average. Looking beyond the "younger than 20" group, the highest carpool usage is among the 30-39 and 40-49 year old groups. The 20-29 and 30-39 groups have the highest proportion of "other" mode users. The highest transit use is among 20-29 year olds.

TABLE 49
AGE AND COMMUTE MODE

	Drive Alone	Carpool	Transit	Other	Total
Younger than 20 (1% of respondents)	53%	25%	3%	19%	100%
20 to 29 (14% of respondents)	54%	18%	20%	9%	100%
30 to 39 (27% of respondents)	60%	21%	11%	8%	100%
40 to 49 (29% of respondents)	62%	21%	11%	6%	100%
50 to 59 (22% of respondents)	73%	11%	10%	5%	100%
60 or older (7% of respondents)	74%	13%	10%	4%	100%
n=3,561					
Regional Average	64%	18%	12%	7%	100%

The percentage of respondents driving alone goes up for respondents with incomes above $35,000 (Table 50). Carpool use is highest among the highest income respondents. This is not consistent with last year when carpooling rates were highest among commuters in the $21,000 to $50,000 ranges. Both transit and "other" mode use decline as income increases. This is consistent with data from last year that showed a similar pattern of lower transit and "other" mode use among higher income respondents.

TABLE 50
ANNUAL HOUSEHOLD INCOME AND COMMUTE MODE

	Drive Alone	Carpool	Transit	Other	Total
Less than $20,000 (5% of respondents)	48%	10%	25%	17%	100%
$21,000 to $35,000 (11% of respondents)	52%	20%	22%	7%	100%
$36,000 to $50,000 (13% of respondents)	62%	16%	14%	9%	100%
$51,000 to $65,000 (15% of respondents)	66%	15%	11%	8%	100%
$66,000 to $80,000 (14% of respondents)	66%	19%	9%	6%	100%
$81,000 to $100,000 (13% of respondents)	67%	19%	9%	5%	100%
More than $100,000 (30% of respondents)	66%	22%	7%	5%	100%
n=3,094					
Regional Average	64%	18%	12%	7%	100%

Female respondents are less likely to drive alone (Table 51). Only 60 percent of women drive alone while 67 percent of men do so. This is similar to last year but not as exaggerated—last year female respondents were 10 percentage points below males in their tendency to drive alone. This contradicts other data gathered in *Commute Profile* that shows male respondents more likely to indicate carpooling, transit and bicycling are possible commute options.

TABLE 51
GENDER AND COMMUTE MODE

	Drive Alone	Carpool	Transit	Other	Total
Male (50% of respondents)	67%	16%	11%	7%	100%
Female (50% of respondents)	60%	20%	13%	7%	100%
n=3,609					
Regional Average	64%	18%	12%	7%	100%

Funding for Rideshare Program services is provided by the Bay Area Air Quality Management District, the Metropolitan Transportation Commission, the Federal Highway Administration and county congestion management agencies.

On the phone. 511 On the web. 511.org On your way. 511™

Your Bay Area travel guide.

RIDES FOR BAY AREA COMMUTERS, INC.

RIDES for Bay Area Commuters, a nonprofit organization, provides Rideshare Program services under contract to the MTC.